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ORIGINAL ARTICLES.

OBSESSIONS: FIXED IDEAS; INDECISIONS; IMPERATIVE CONCEPTIONS; ABULIAS; PHOBIAS.*

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"Obstupui, steterunt quecomae et vox faucibus haesit."

"I was amazed, my hair stood on end and my voice stuck in my throat." VERGIL, *Aeneid*, II, 774.

"I am not so good a naturalist (as they call it) as to discern by what secret springs fear has its motion in us; but, be this as it may, 'tis a strange passion, and such a one that the physicians say there is no other whatever that sooner dethrones our judgment from its proper seat; which is so true, that I myself have seen very many become frantic through fear; and, even in those of the best settled temper, it is most certain that it begets a terrible astonishment and confusion during the fit. I omit the vulgar sort, to whom it one while represents their great grandsires risen out of their graves in their shrouds, another while hobgoblins, specters and chimeras; but even among soldiers, a sort of man over whom, of all others, it ought to have the least power, how often has it converted flocks of sheep into armored squadrons, reeds and bullrushes into pikes and lances, friends into enemies, and the French white cross into the red cross of Spain! * * * *

The many people who, impatient of the perpetual alarms of fear, have hanged or drowned themselves, or dashed themselves to pieces, give us sufficiently to understand that fear is more importunate and insupportable than death itself."

THESE words of Montaigne, written over 300 years ago, show that the great philosopher very fully realized the far-reaching importance of fear in its influence upon human action. It is to be noted, too, that he distinguished between normal and morbid fear, and recognized the extremes of the latter which may be encountered. Probably no element is so constantly associated with the various obsessions as that of fear, while in some of them it constitutes the chief, if not the sole, element. It therefore seemed to me that the words of the great essayist might well form the text for this paper.

Before going into a description of the various obsessions it might be well to glance at certain mental features of what we ordinarily call the normal man. Man, like all other living organisms, is essentially a reflex being. Multitudinous reflexes, simple and complex, are of daily occurrence. Even the higher psychical processes are doubtless reflex in character, although of course much less apparently so than those of the lower order. Into a reflex action, as is well known, these factors enter: Stimulus, afferent path, re-

ceptive center or centers, efferent path, and lastly, the end-organ. Yet this is not all, for still another element enters into the mechanism, which in the case of mental operations in the normal adult is most striking; namely, that of inhibition.

"From various excitations of the sensibility, stimuli pass to the nerve-centers, where they finally produce, after a series of more or less complicated operations, two kinds of reactions; a reaction of arrest or inhibition, which suppresses certain others; and the reaction of reinforcement or impulsion, which transmits the others to the motor organs, to be transformed into acts." (Regis.)

"This function of inhibition in suppressing the centripetal impulses or in augmenting them, constitutes in brief what is known as the will." (Morel, Regis, Ribot, Janet.)

The obsessions, therefore, are diseases of the cerebral inhibitory apparatus; that is, of the will, if we may presume that the other elements in the reflex are functioning normally. It is, however, evident that the afferent or efferent paths or end-organ may be defective, in which case the will would be affected only secondarily or negatively.

In the young child, as is well known, a stimulus is promptly converted into a reflex expression, either motor or glandular; and the emotion awakened by it is plainly in evidence. But as the child grows older its power to suppress stimuli becomes more and more apparent; and the adult is daily suppressing an enormous number of them, since his inhibitory power or will has become fully developed; yet we cannot conceive of a man whose physical and mental mechanism are perfect and whose operations are flawless. So all of us at times, exhibit defects of control or defects of will-power, which we recognize more or less clearly. Who has not experienced unreasonable fears and doubts, felt impotent, or acted upon rash impulses? Who of us has not felt doubts and fears and entertained thoughts which he would be ashamed to relate? Montaigne has said that "There is no man so good who, were he to submit all his thoughts and actions to the laws, would not deserve hanging ten times in his life." Occurrences of the past, painful or disagreeable, recur to all of us, often accompanied by marked emotional experience. Our imaginations create for us events or situations in which our emotional natures partake.

Thoughts as to what we could or might do enter our fields of consciousness which we would be heartily ashamed to mention. Moreover, these obsessive ideas and emotions often express themselves in actions. The desire to count objects, as e.g. telegraph-poles, fence-posts, buttons, window-panes, and various other

* Paper read before a joint meeting of the Lawrence, Mercer, and Beaver County Medical Societies, held at New Castle, Pa., July 2, 1902.

objects, is common to many. The impulse to avoid the cracks, or to step upon them, in walking upon a flagstone pavement, is a frequent experience. Many normal individuals touch fence-posts, door-panels, etc. Among the fears frequently observed in normal persons is that of thunderstorms, of high places, of crowds, of dirt, of disease, of animals, or of blood. All of us experience doubts more or less constantly; and even when somewhat unreasonable or ludicrous we scarcely consider them morbid. A few examples may be mentioned: A man locks his safe carefully, and then goes back to try if it really is locked; another carefully turns out the gas, and then goes back to see whether it really is out; another, after carefully stamping his letters, will look over them to see that they are all right, and then, before posting them, again go over them; another will draw his check, seal it in an envelope, and then tear open the envelope to ascertain whether it is correctly drawn. We are all acquainted with the man who, after making a decision in the affairs of life, at once begins to doubt whether he has acted wisely.

These various ideas, emotions, doubts and impulses, to which everyone is subject, may become so greatly exaggerated and so persistent in their recurrence that they must be considered as morbid expressions, and even as part of or constituting a veritable insanity. Probably in the consideration of no other set of symptoms is the observer so clearly able to note the various degrees of diseases of the mind, ranging from the slightest and most insignificant, through the various shades, until the frightful homicidal impulses of the insane epileptic or alcoholic subject are reached.

Since the term obsession is employed with different meanings, I wish to state that in this paper it will be designed to include a group of mental symptoms more or less allied, occurring in various psychical states, which have been called by various writers fixed ideas, impulsions, abulias, besetments, imperative conceptions, and phobias.

Regis* accounts the various obsessions as expressions of neurasthenia, and Berkeley† apparently adopts the same view. While there can be no doubt that the obsessions are very frequently seen in neurasthenic states, my own observation is that many of them are not so associated. Some arise from the melancholic soil; others are expressions of hysteria; in other cases the symptom seems to be the sole expression of physiological degeneration; while in still others the symptom is seen in individuals who present no other evidence of disease or degeneration and are apparently normal. Of course, if it is claimed that the symptom itself is evidence of the existence of neurasthenia, the argument at once ends. Certain obsessions are frequently seen in epilepsy, a disease which, so far as I am aware, has never been accounted as belonging to the neurasthenias. They are no doubt seen in almost all of the acute

and many of the chronic insanities. It is, however, my purpose to consider the obsessions only as they present themselves in patients outside the asylum, many of whom are clearly not insane, others among whom must be accounted insane, and still others of whom it may be said that they belong to the great class of "borderland cases," i.e., they stand midway between sanity and insanity. By some writers, as e.g. Brower and Bannister,* these three groups are accounted as one and as belonging to the "borderland and episodic states."

Obsessions may be conveniently divided into five classes: (1) Of doubt; (2) of fear; (3) of impulse; (4) of miscellaneous ideas; (5) abulias.

The obsessions of doubt (*folie du doute*) or indecision are very common, and include, besides the doubts concerning smaller matters, those upon metaphysical and religious subjects.

Obsessions of fear are as numerous as the hopes and desires of the human mind. Many of them have received special names, as e.g. misophobia (fear of dirt); pathophobia (fear of disease); hematophobia (fear of blood); agoraphobia (fear of open places), etc., etc.; but the naming of the different fears is of doubtful value, since it leads to a burdensome nomenclature of great length.

Morbid impulses or propensions (imperative obsessions) is a descriptive term for actions which appear to be purely impulsive and not the outcome of an idea or emotion; although in truth they always do thus arise. Among these may be mentioned kleptomania (impulse to steal), pyromania (impulse to set fires), those of homicide, suicide, dipsomania, etc.

Miscellaneous ideas, painful and otherwise, which are not comprehended under the other heads, are frequently noted.

An abulia is a non-action (*non vouloir*). The term is used to describe the lack of power to execute an act which the individual desires to perform. An abulia is really a reverse or inverse sort of an obsession. This variety of obsession is frequently seen in neurasthenia and hysteria, and at times has a most striking symptom.

The following cases are offered as illustrative of the different varieties of obsessions:

Case I.—A glass-cutter,† aged fifty-eight years, has suffered from rheumatoid arthritis, which for the past five years has confined him to bed. For the past nine or ten months he has been subject to many and various obsessions, and since he has been confined to bed he has made veritable slaves of his wife and daughter, requiring them to act upon his numerous obsessive ideas. The rugs had to be perfectly straight, with the fringe combed out in regular order; all the table and mantel ornaments had to be arranged in a particular manner; sheets and pillow-cases had to be arranged in a very exact fashion. He required that particles of dirt should not only be removed, but

* Manual of Mental Diseases, page 246 of 247.

† Mental Diseases, page 261 of 267.

* Manual of Insanity, page 320 of 247.
† This case has been previously referred to by me in a discussion before the American Neurologic Association. See Transactions for 1901, page 206.

that they should be thrown into the closet and the same flushed. He always touched a pulley apparatus above his head twice just before retiring for the night. He read the newspaper at a certain time of day and always for the same length of time.

Upon my first visit I carelessly pulled a small bit of wool from the blanket. He instantly demanded, in great agitation, that I give it to him; and when he received it he called for his daughter and carefully handed it to her with the command to throw it into the closet and flush the same. This done, he appeared to experience marked relief. But a moment later he noted that the shawl of his sister, who was sitting in the room, was trailing on the floor. Instantly he became agitated and demanded that it should be pulled up off the floor. I told the sister to disregard this request. Moreover, I disarranged the mantel ornaments, turned up the edge of the rug, threw some particles of wool on the floor, directed his wife to pay no attention whatever to his unreasonable requests, and to let the various articles remain as I had placed them. The patient's mental agitation was extreme; but he shortly cooled down. He admitted that there was "no sense" in his requests; but he said he could not help feeling and acting as he did. I agreed with him that his thoughts and actions were foolish, and told him that it was my desire and purpose to help him rid himself of them. He gave a reluctant consent to receiving my assistance. A week later I found a most marked change, which is attributable to faithful cooperation with my plan on the part of his wife. The patient made almost none of his strange demands. For the first time for many weeks he had his hair cut (previously he had feared to have it cut lest some of his brains should come out with it). Two weeks later the same improvement was maintained; and the whole atmosphere of the house had, in consequence, been changed.

Here the group of obsessions had been removed, as if by the blow of a club. I am inclined to believe the success of the treatment in this case (obviously of limited application) arose from the firm stand we made and from our absolute refusal to countenance any of his obsessions in any way whatever. Dr. W. K. Walker offers me the plausible suggestion that the patient, thinking it was utterly hopeless to endeavor to have his ideas carried out, gave way, with the belief that, if there were any evil consequences to arise from the non-action upon his obsessions, they fell on me rather than himself, since I, not he, was responsible for their non-execution.

Case II.—A married woman, aged twenty-seven years, with one child eight years old, had always been well until three years previously, when she was seized with an illness which I believe to have been multiple neuritis, and which incapacitated her for a period of five months.

Five weeks ago, upon seeing the butcher-knife, she was seized with a desire to use it upon herself. This impulsive idea frequently returned, and in

order to remove temptation she finally threw the knife into the stove. A little later she saw the head of her child upon a tree, and ever since she has lived in constant dread lest she might kill her child. She had a general fear of impending evil. Neurasthenic symptoms were present, but by no means permanent. It became necessary subsequently to place her in an asylum.

Case III.—A married woman, forty-four years of age, has for several years past suffered much from a "bowel trouble." Instead of telling of symptoms from which she suffered, she related, as evidence of her disease, that her stools were fermented and slimy, and that she is compelled to visit the closet at least twice daily. Only when pressed by questions did she state that she suffered some distress in the epigastric region and from gaseous eructations. She presented no physical symptoms or signs whatever. Her stools were perfectly normal. Dr. Frank Murdock discovered an absence of hydrochloric acid in the stomach contents and treated her with a view to correcting the defective gastric secretion.

Her husband stated that she had gone to many doctors and many resorts, *seeking relief from the condition of fermented stools*; that no subject except that of her physical health interested her, and that upon this she never tired of speaking; that in the beginning of her illness she was almost constantly before the glass examining her tongue.

That the defective gastric secretion does not offer the full explanation of the mental condition of this woman seems evident. I looked upon her as suffering from a fixed idea itself, the most striking expression of a condition of hypochondriasis.

Case IV.—A single woman, aged thirty years, consulted me only yesterday (June 25), complaining of obsessions which had troubled her during the past eight years. Her first obsession was in the nature of a doubt, and this has recurred to her with greater persistence than any other. A box of eggs was broken in her father's grocery store, and she was accused of being responsible for the accident. Her denial was accepted and the matter dropped; but ever since doubts recur to her mind as to whether she told the truth. For a long time the thought often came to her that her leg would be amputated; again, that fire would be placed under her bed; then that she might kill her sister's two children. She is much troubled by general or indefinite fears, fears of impending evil, and many which she cannot describe.

She is somewhat, but not markedly, neurasthenic, and aside from these obsessions, which she regards as "crazy thoughts" and from which she desires to escape, her mental and physical health seems to be fairly good. She works about the house regularly, but these "presentiments," as she calls them, prevent her from taking any pleasure in social intercourse, which she consequently avoids. In her small, asymmetrical, misshapen ears and high palatal arch, stigmata of degeneration are to be noted.

Some time ago, the patient tells me, she applied to an osteopathic institute for relief, and although she complained of no symptoms referable to the abdomen, that cavity was opened, and an operation consisting of the detachment of the womb from the vertebral canal, to which it had grown, was performed. No relief followed this remarkable operation. She observed that although the "presentiments" caused her great mental distress, she submitted herself to this actual operation without the slightest fear or anxiety.

In this case several varieties of obsessions are to be recognized; namely, those of doubt, fear, and impulse.

Case V.—A single man, a foreman, forty-seven years old, enjoying excellent health, has had since childhood a dread of public speaking, which he much regrets, since, as a lodge-member, he has often wished to express his sentiments in the meetings. A recent subpoena to testify in court concerning a matter in which for himself nothing is at stake has caused him no end of dread. He is haunted by the thought of his appearance on the witness-stand, and consulted a physician regarding the matter, who in turn sent him to me for some advice regarding public speaking.

You cannot have listened to me so long without the thought occurring to you that any attempt on my part to instruct him was a case of "the blind leading the blind." However, I did make an effort, but with what measure of success I am at this time unable to state.

In this case the obsession is in the nature of an *abulia* associated with fear.

Case VI.—A man, aged twenty-one years, the son of wealthy and nervous parents, had been from infancy nervous and restless. He is quite as bright as most young men of his age, and has a robust frame, being six feet tall.

Since childhood he has been periodically troubled with stuttering, which at times has been so extreme that he has been unable to utter a single word. When at play or engaged in any pleasurable occupation, attending a party, or taking part in a discussion with a companion, there is not the slightest evidence of stuttering. He never stutters in the presence of persons, situations and surroundings which interest him. In other words, when his interest is active he is entirely free from stuttering; where he feels tedium he stutters, and in direct proportion to the degree in which he feels it. For example, at a party, on the golf-links, or on the football field he never stutters; when spending a quiet evening with his parents he does. He attended several schools, never stuttering when the school was new to him, but always doing so later on when he became tired of it.

Mentally and physically he seems well enough, although he is of a very nervous temperament. He exhibits the phenomenon of *dermography* in a very marked degree. Although the phenomena in this case are somewhat different from the obsessions ordinarily so-called, I feel that the un-

derlying mental mechanism is essentially the same.

It seemed to me that it was a mistake to take the boy from a school when stuttering began and place him in another. I advised a regular occupation, with the understanding that he is to stick to it, stuttering or no stuttering. Besides this, I have endeavored to place him under the most favorable mental and physical hygienic regulations. Thus far little or no success has resulted from my efforts.

In this case we have another example of the *abuliac* form of obsessions; for the boy's trouble consists essentially in the loss of power of action of a certain sort under certain conditions.

Case VII.—A married woman, aged twenty-nine years, mother of three children, had been much worried for three years past. She was thin and pale, but presented no marked *neurasthenic* symptoms. One night the thought came to her: "How terrible it would be if my child were to die to-night! They would say I killed it." Later this thought came to her and persistently recurred: "How terrible if I should get to going with a colored man!"

Constant, although apparently mild, mental depression existed. I regarded the woman's case as one of mild *melancholia*, in which obsessions constituted the obtrusive symptoms. Under treatment she made slow but satisfactory progress, and never entered an asylum.

Case VIII.—A man, twenty-one years of age, a clerk, who had always been in good health, came complaining of an odor of feces which constantly emanated from his body. He frequently bathes and changes his clothes to escape the odor. No one has ever remarked upon the smell, but he is sure every one near him must detect it. I observed that the odor was not apparent to me. He explained this by saying that the smell of drugs in a doctor's office would neutralize it. (I may here state that my office contains no odoriferous drugs, and that trial samples of medical preparations presented to me are promptly deposited in the waste-basket.) The act of sniffing does not intensify the odor. Of late he has been using a great deal of cologne to disguise this foul smell. Clerks in the office sometimes twit him, saying, "Why do you not take a bath instead of using cologne?" He believes the clerks must know his real reason for using the cologne.

Here we have an example of a single fixed idea or an olfactory hallucination in an otherwise sane man, who firmly believes in its reality.

In attempting to treat him I told him that no odor existed, but that he suffered from a false sense-perception. But in doing so I now believe that I acted unwisely. After his second visit to my office I received a note from him saying that he had found a doctor who "understood his case," had discovered the origin of the odor, and was removing the same at a specified monthly rate.

Case IX.—A married woman, aged fifty-eight years, is known to have had several lice upon her

head six months ago. Since that time she has constantly felt bugs crawling over her body. She feels them in her mouth, nose and ears; she combs bugs out of her hair, picks them off of her clothes and gaiters; she gets up at night to heat her clothes, that she may rid herself of them; she bathes every night for the same reason. She brought combings from her hair and bits of epithelium from her skin, which she gravely asserted contained bugs. She admitted she had never seen the bugs. Lately bugs had burrowed through her skin and become located inside of her body.

She told her story in a most plausible manner, and, in general, appeared to possess a perfectly sound mind. Although there can be no doubt whatever that her ideas regarding the bugs were delusional, she had convinced the members of her family as to their reality, despite the fact that none of them had ever seen a single one.

Here we have a single fixed idea or cutaneous hallucination, existing in an otherwise sane woman, who was unable to recognize it as a false or foolish idea or hallucination.

If there is such a thing as mental disease other than insanity, the last two cases would seem to afford good examples of it. Both of these cases differ from all the others which are related in this paper, in that the fixed idea is accepted as a true one.

These two cases constitute excellent examples of what we may term "borderland insanity;" and yet I think none of you would have been willing to sign a certificate of insanity for either of them.

Hysteria may express itself by a single symptom, as *e.g.* that of pain. Two examples follow:

Case X.—A girl, twenty years old, was bruised (not severely) over the left arm. Ever since then she has constantly complained of pain in that region, and fears that an amputation may be necessary to relieve her. An examination revealed the arm to be perfectly normal.

Case XI.—A Jewish boy, aged twenty years, of perfectly healthy appearance, complained of a pain-area the size of a quarter-dollar piece in the right lumbar region, from which he has suffered during the last four years, and for which he has consulted 10 different doctors. A careful examination excluded physical disease and led to the conclusion that the pain was psychical, a fixed idea, the sole expression of hysteria.

Case XII.—A Jewess, twenty-six years of age, married, and the daughter of nervous parents, enjoyed good health until recently. For the past few months she has been troubled by the recurrence to her mind of painful and disagreeable thoughts. These thoughts are various, but always painful or disagreeable, and relate to past occurrences. She is emotionally depressed by them and by reason of the fact that her attempts to throw them off are futile. She describes the thoughts as "unreasonable" and "crazy;" indeed, she refused to state exactly what these obsessive thoughts were, saying she was ashamed of them. She searches for a reason for them; when she

finds it, which is sometimes the case, she is much relieved. She has fears of becoming insane.

In this case it seemed to me that there were strong reasons to fear the supervention of true melancholia.

Case XIII.—Some years ago, through the courtesy of Dr. Samuel Ayres, I saw one of his patients, a man aged seventy years, who exhibited the phenomenon of obsessions in an astonishing manner. The patient frequently gave vent to loud, explosive utterances, which often consisted of oaths (a symptom which has been named coprolalia). In the most sudden and unexplainable manner he would suddenly beat his chest. In walking he would suddenly stop, tap the floor or ground several times with his feet, and then proceed. Similarly he often stopped abruptly, knocked on a door or wall several times, and then proceeded.

Here, in passing, it may be remarked that the so-called tics and muscular grimaces are, in all probability, muscular analogues of the obsessions and dependent upon the same defects of mechanism.

Case XIV.—A single man, twenty-one years old, had masturbated from 14 to 16 years, and he attributes all of his subsequent troubles to this indiscretion. Since he gave up self-abuse he has been troubled with various ill-defined fears. These leave him for a time, only to return again. Thoughts which he cannot define or explain, except to say that they are unpleasant, enter his mind. He is often seized with a desire to touch objects, which he has difficulty in resisting. If, when walking with a companion, a passer-by, coming from the opposite direction, goes between him and his companion, he is seized with a desire to go back and around the passer-by, as though to unwind the loop which has been created, as it were. He has a great dread of high places. The recollection of a visit he made to Niagara Falls always brings misery to him. He is beset by many doubts. For example, he turns out three gas-jets every evening, and after retiring worries over them for fear he may not have turned them off properly. The thought of suicide occurs to him, but he has never been able to summon enough courage to actually attempt the deed. He awakens tired, unrefreshed, and lacks ambition and he fears that his state of wretchedness must be apparent to others. To me, however, it was betrayed only by his story, for his conduct, dress and manner indicated nothing unusual.

In this case, examples of nearly all the various obsessions are to be noted; doubt, fear, impulse, abulia.

Case XV.—A commercial traveler, aged twenty-five years, had masturbated regularly until three or four months before his marriage, which occurred six months ago. For several months past he had been neurasthenic, and much troubled by various obsessions of fear and impulsive ideas. He has a great dread of high places; the sight of a razor or a knife brings with it the impulse to

seize it and use it upon himself or others. Upon seeing a group of children he was seized with a desire to jump on them, and he was afraid to approach lest he should give way to his desire. In hanging up pictures the impulse to throw the hammer at those assisting seized him, and he ceased working for fear he might give way to the impulse. In a car the impulse to assault a passenger in front of him took strong hold of him, so that he changed his seat to remove the temptation. These various imperative conceptions have caused him great anxiety, for he is in constant fear that he may commit some rash act. He fears that these obsessions may lead to insanity, and besides this, his reflections upon his habit of masturbation, and the belief that all his troubles are attributable to it, are a source of infinite misery to him. Yet in spite of all his troubles he has been pursuing his regular occupation and he asserted that no one had divined the state of his mind. Under a proper treatment he made very marked improvement, and finally was able to rid himself entirely of his obsessions.

Here, again, it may be remarked, a variety of obsessions are to be noted, imperative conceptions apparently predominating.

Case XVI.—A small, under-developed boy, aged twenty years, presenting stigmata of degeneration, who has masturbated from the age of seven up to eighteen and a half years, labored under the fear that his manhood was gone and that the fact could be read in his face. He worried much because of the smallness of his penis, and believed that if this organ could be enlarged his manhood would return. He had actually undertaken two courses of treatment from advertising quacks, who had promised to accomplish that which he desired. I suggested to him that, being single, he needed a penis for one purpose only, micturition, and outlined a treatment consisting of mental, moral and physical hygiene.

Case XVII.—A married man, thirty years old, with a fairly good family history, and presenting not only a healthy but a rugged appearance, had masturbated up to the age of sixteen years. He attributed all his subsequent misery to this fact. At eighteen he was constantly seized with a peculiar sensation about the head, which he states was difficult to describe, but which felt as though his brain had been seized hold of, while specks flew before his eyes. He stayed himself in great agony, feeling that loss of consciousness was imminent, which, however, did not supervene. Similar attacks recurred at irregular intervals. He avoided crowds as much as possible for fear he would disgrace himself by exhibiting himself in an attack of unconsciousness. He not only dreaded the attacks themselves but feared they would lead to some more serious development. The thought that he had to remain in an office or assemblage-room often caused him great agony. He would walk out to wash his hands, or upon some other simple pretext, in order to test his powers of equilibrium and, as it were, to recover himself in a place of safety. He always felt

much easier if he could have a seat or desk near the door, so that he could make his exit without attracting much attention, and the very thought that escape was easy brought comfort to him, or, at least, lessened his misgivings. All the while he felt that the habit of masturbation was the cause of all his troubles, and he believed that if he were to become unconscious the whole cause of his trouble (masturbation) would become apparent and his disgrace be unbearable. This he dreaded even more than death. Flight from his trouble and mighty exertions of the will were, he felt, the only two sources of his preservation from this awful disgrace. He married at twenty-four, hoping thus, in the exercise of his sexual functions in a normal manner, to escape his troubles, and for more than a year thereafter he was free from the attacks and the fear of them. At twenty-five the attacks returned, and for the past five years he has been pretty much in the same condition as that prior to his marriage.

In telling his story he stated that he had never revealed it to any one before; that no one, not even his wife, had remarked anything amiss in him. Lately he had derived considerable comfort from the reflection that these attacks had, during the 14 years he had suffered from them, led to nothing more serious, and that unconsciousness had never occurred.

It was explained to him that masturbation was not in itself responsible for his attacks, but that they were chargeable to his thoughts concerning them and his fear as to their outcome, and that his salvation must come through cultivating more and more the beginning confidence begotten by the thought, in an approaching "attack," that nothing could happen, since nothing had ever happened, and in the reflection that no one could possibly divine masturbation as the cause of his troubles.

It may not be inappropriate at this point to remark upon the unwisdom exhibited by most teachers, parents and clergymen in their preaching against the habit of masturbation. The boy is usually told that masturbation must inevitably lead to mental and physical deterioration, and that its victims carry the evidence of the habit plainly stamped on their faces. Could any teaching be better calculated to engender the train of morbid ideas which have been related in the histories of these last few cases? Is it not in a great measure responsible for an enormous amount of mental suffering among that large class of men and boys whom the advertising quacks speak of as victims of "lost manhood"? It is refreshing to note that Sturgis,* a recent writer on sexual debility, strongly deprecates this false teaching regarding the consequences of masturbation.

In all these cases it is my habit to point out to the unfortunate sufferer, in as forcible a manner as possible, that the great majority of young men have masturbated at some time in their lives: that instead of the practice being invariably followed

* Sexual Debility in Man, page 93 of 197.

by evil results, such is only rarely the case, and that it is impossible for anyone to tell from the faces of masturbators, that they have ever indulged in this regrettable practice. At the same time I try in a temperate manner to state what I believe to be the simple truth regarding this disgusting and sometimes harmful practice.

Regarding the treatment of the obsessions generally, no hard and fast rule can be given, since, as is obvious, the measures must be chiefly directed against the conditions from which they arise; although in all cases more or less treatment may be adopted to correct the symptoms themselves. In any case, mental treatment must occupy the first place, and this must be adapted to each individual case. Efforts must be directed toward maintaining the physical tone, and no measures are here so generally useful as the simple rules of hygiene, the use of hydropathy, massage, and electricity. The matter of vacations, rest, exercise, recreations, are all comprehended under this head. The treatment by drugs is of the least importance. Yet it is usually well to give a simple remedy (for which one need never go outside the U. S. Pharmacopœia), such as for instance, tincture of nux vomica as a tonic, and also for its mental impression. Certain cases may of course demand the various drugs for various conditions. But all other things being equal, the simpler the drug-treatment the better.

THE SIGNIFICANCE OF THE TERMS ACUTE AND CHRONIC.*

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IT is with the hope of pardon for refraining from the usual chairman's review of the past year in the work done in pathology that the writer would call your attention upon the present occasion to a matter which, although of minor importance in many ways, is yet one which he feels merits consideration because of the frequency with which the uncertainty of definition of two related terms of constant use in our nomenclature of disease is brought to mind. In each succeeding year the regularly recurring questions which arise among our students as to the formal application of terms have always brought forward the words *acute* and *chronic* as names which by no means appear from the context of writings in which they occur, or from the definition of lexicographer or lecturer, to be invariable and consistent in meaning and one has regularly to point out the evidences of a progressive change in their various applications. In spite of the Bible and Shakespeare our language is by no means fixed, and while new words, representative of new ideas, are constantly being added, many an old term is coming to be burdened with significance it was not intended to convey, either originally or by the authority of our older lexi-

cons. The former definitions of these two words are based upon their etymological meanings, and clearly indicate the elements of *course* and of *duration* of disease. Later there appeared ideas as to the regularity of *symptom presentation* in acute diseases and of irregularity of presentation in cases of chronic duration. Moreover, there was long since added an indefinite correlation of the *degrees of severity* of the symptoms, and in an irregular fashion one may trace the influence of this phase of thought to the present, one lexicographer embodying the idea in his definitions of the words, another neglecting it for a reason which is easily apprehended—the uncertainty of severity of symptoms in acute, as well as of mildness of symptoms in chronic affections. At present there is, and has been for years, a fourth feature gradually appearing, not as yet generally noticed in our dictionaries, but certainly indicated in popular usage of the words—that of a prognostication as to the *outcome* of the disease; and there are few of us who do not realize the feeling of hopelessness which comes to a patient when his affection is termed chronic and the relative hopefulness for complete recovery manifested (if any degree of recovery is possible) when his condition is pronounced an acute one. One cannot help acknowledging the rational basis for this assumed meaning in a large number of affections at least, even though its retention must add to the real confusion which has already more than once arisen, as is natural where one seeks to apply a term of threefold meaning (involving *time*, *severity* and *regularity of presentation of symptoms*) in a manner meant to convey but one of its phases.

Among lexicographers the following will serve to indicate the uncertainty of definition which obtains in respect to these terms. Quain's dictionary speaks of *acute* as signifying of a disease that it "runs a more or less rapid course and is generally attended with urgent symptoms," a definition covering the ideas of duration and severity of symptoms, although not entirely above criticism in the declaration that the symptoms are even generally urgent. Of course they are often urgent, but very frequently such an adjective can not be employed with the least propriety to describe their degree of severity. This work speaks of *chronic* as "applied to a disease when its progress is slow and its duration prolonged"—a limitation of the more common acceptance, but unassailable as far as it goes. Gould states that the term *acute* is "used of disease having a rapid and severe onset, progress and termination," with which few are likely to agree even in the main. (For example, who will characterize the typically insidious invasion of such a disease as typhoid fever as rapid and severe and its termination as necessarily meriting the same terms?) He appears safe, but not inclusive of the characteristically irregular phenomena of a *chronic* disease course, when he defines it as "long-continued; of long duration; slow of progress; opposed to *acute* and to *subacute*." The Century Dictionary speaks of *acute* in a pathological sense as "at-

* Read at the meeting of the Texas State Medical Association, 1902.

tended with more or less violent symptoms and coming speedily to a crisis," although a definite crisis, as is well known, is by no means a constant feature of many essentially acute affections; of *chronic* as "continuing a long time; inveterate or of long continuance, as a disease; hence mild as to intensity and slow as to progress."

These three dictionaries may be taken without much hesitation as fair representatives of the position of lexicographers among the English speaking people so far as such terms are concerned; yet one cannot avoid the very real inconsistencies expressed in these selections, and questions must arise as to the correctness of one or two such expressions, setting aside the difference of limitation in the use of the words as indicated by these authorities. Moreover, while in two of the above quotations there is reference to the matter of outcome of disease, it is for the most part not referred to at all; yet, as the writer has suggested, such a feature does really exist, at least in a tacit manner, in our conversation, and now and again in our professional writing. What physician, when he employs the term *chronic* in connection with some particular case, does not realize, if he thinks of it at all, a possible basis of excuse for failure to accomplish a result he might hopefully regard were the disease one of shorter duration and more regularity in its presentation of symptoms? Whether one will or will not formally declare that, aside from the lexicon definitions mentioned, he will attach to the term *chronic* in pathology the relatively hopeless outlook for recovery, such a meaning surely obtains in the minds of non-medical persons and in some measure in his own.

When, in the early part of his professional life, the writer entered a term of service as interne in one of the large insane asylums of the East, he was very naturally puzzled as to the basis of classification of the cases in his charge into acute and chronic forms of insanity. Some cases of so-called acute insanity presented histories of by no means rapid or severe onset; some were decidedly mild, so far as the matter of symptom intensity was concerned; and most by no means rapidly approached anything similar to a crisis. Many of the chronic cases were of the most intense type; some gave a history of relatively rapid onset. On inquiry the information was given by the medical officer in charge that an artificial time limit was accepted by him, as well by others, in separating these two groups. When a case had progressed without decided evidence of improvement for the period of one year it was no longer regarded as acute, but set down as chronic. How far such an absurd limitation prevailed among alienists at that time the writer does not know; he could not then nor can he now accept it with equanimity. The more common definition received at present, and one which also accords with the suggestions made above, is that a case of insanity may in a clinical sense be regarded as in the *acute* stage as long as no mental deterioration is distinctly apparent along with the usual mental perversions of the disease, and

that such a case merits the term *chronic* when any degree of terminal dementia becomes recognizable. (Such differentiation cannot be held perhaps except in a clinical sense; since long before the appearance of a terminal dementia there may exist in this or that case structural alterations of an essentially irrecoverable type.)

It seems unnecessary to multiply illustrations of such faults in nomenclature arising from the confusion indicated; but the following example is of such real importance that it may well be considered as a reason for greater precision. There can be no doubt as to the interpretation placed upon the term *chronic* by the laity, when applied to the forms of renal disease classed in the group of Bright's disease. Without precise explanation at the hands of the diagnostician a sense of hopelessness and irremediability at once seizes upon the unfortunate subject, and even though the condition be a relatively tractable one, after the most explicit description and outline of affairs the patient is apt to remain dissatisfied and depressed. This same feeling, to the harm of the patient, is likely to be present in the mind of many a physician who has had his ideas moulded by our standard text-books, and many a case is given over as relatively unamenable to curative measures, so that it pursues a course tending to actual irremediability, when with a different mental attitude on the part of the physician, together with constant care, supervision and active treatment, there might well have been a different outcome. Not with the least intention to criticize this one book, which is merely an example of many that are, and deservedly so, regarded as standard and authoritative, the text-book on medicine by Osler may be offered in evidence of the point in question. The writer is unwilling to accept the general classification of Bright's disease presented by Osler, and to a greater degree the more complicated ones of a number of other authors; but except in a limited way this need not in the present connection be called up. The major error of the text, as it appears to the writer, lies in the fact that the author, in attempting to consider all acute cases of this group under one form, and all of chronic duration which involve the parenchyma under another single heading, has forced an artificial separation of the early and late cases of parenchymatous degeneration (with or without inflammatory combinations), and has grouped the early cases of this degenerative condition with the non-degenerative acute form of Bright's disease on the one hand, and on the other the later cases with the more serious, fatty degenerated and contracted cases. This is a confusion unnecessary, either clinically or anatomically, and one which must in some measure conduce to the chances for unfavorable result in the management of the case.

It appears to the writer that there are two types of acute Bright's disease, well distinguished from each other in etiology, semeiology, anatomy and prognosis in perfect examples, and while very frequently in the first few days of the course there is apt to be some confusion of the symptoms, the two types become separated in a

short time; so that the great majority can be diagnosed without trouble. These two forms are the acute nephritis of infectious processes and the acute nephritis arising from non-infectious causes. The former has as its basis a greater or less degree of cloudy swelling of the cortical epithelium, with which are associated in a variable measure hyperemia (sometimes hemorrhage) and connective tissue multiplication. The second form presents practically only these latter or purely inflammatory changes. The first is the "large white kidney," modified more or less in its gross and minute appearances by the hyperemia which at first is apt to be associated (but which may at times be practically absent), and is either a large, pale, flabby organ or a large, mottled (red and white) flabby kidney; while the second is the "large red kidney," a large, deep-red organ, more or less tense and without the flabbiness which is characteristic of the first. On section the former usually shows a distinct differentiation of the cortex from the medulla, the cortex swollen and pale or mottled, the medulla red, and a moderate amount of blood may drip from the cut surface; or the whole organ may be uniformly pale on section, the cortex poorly defined but thick. The latter form over the cut surface is uniformly red, and drips freely with blood, and the swollen condition of the cortex is not present in any marked degree. In the matter of onset the former type always becomes manifest in the course of some infection, usually after the period of acme has proceeded for at least several days, and varies in the rapidity of its development; while the latter follows some such cause as acute alcoholic excess along with exposure (as where a drunken person lies in his stupor upon the ground, perhaps in the gutter, during a cold night), or excessive doses of such irritants as cantharides, turpentine, the mercurials or similar substances, and for the most part its inception is immediate, developing in the course of a few hours. The large white kidney of the infections, if associated with much inflammatory reaction from the irritant toxins brought to it in the blood, will probably be sufficiently congested to produce at first a variable degree of suppression of the urine, and hematuria may be present from the same cause. During such stage, the urine will be highly albuminous, and the altered epithelium will be readily detached, appearing free in the urine or attached to the numerous casts; but without such congestion, as is possible, it is not to be expected that these severe symptoms of suppression and hematuria will prevail, such cases often being unrecognized except by close examination of the urine. In the non-infectious type, the typical large red kidney, the element of congestion is an essential feature, and suppression varying with the degree of blood stagnation in the kidneys together with a variable hematuria, must be regarded as constant features. From a prognostic standpoint the large white kidney may under favorable conditions pass to recovery in the course of a number of days or weeks; or on the other hand it may be fatally terminated in its first few days from

uremic poisoning. In by no means all the cases in which death does not occur does the kidney promptly return to normal; but after a prolonged presence, varying from months to years, it may pass from the albuminous alteration of its cells to a fatty degeneration, the basic condition of the real chronic parenchymatous nephritis or "fatty and contracted kidney." On the other hand, the large red kidney, the acute non-infectious nephritis, if it does not kill in the first few days from urinary suppression and consequent anemia, is usually quickly and completely repaired; although the writer is satisfied that a single attack may sometimes be the starting-point for a chronic formative process leading to the ordinary "red granular kidney," and that should steps to the recurrence of the acute process be afforded by indiscretions on the part of the patient, this possibility becomes the more distinct. If it be granted that such distinctions warrant the assertion that at least two separable types exist in the description of the text in discussion (and these types are really indicated as varieties of one and the same process in the text-book of Osler), the writer does not hesitate to call attention to the fact, not infrequently verified in clinical study of cases, and followed in some instances by subsequent autopsy findings, that such parenchymatous degeneration or cloudy swelling of the kidneys, and of other organs as well, may continue as such more or less indefinitely for months or even for two or three years, without showing distinct alteration of the cellular protoplasm into fatty substances. Should such a case, extending over a course within these limits, be placed under conditions favorable to cellular nutrition, the experience of the writer would indicate that at any stage, judging from the resumption of a normal function, the normal structure of the affected parts may be resumed; although on the other hand, at any time during the same period, should cellular metabolism be seriously modified or cellular nutrition greatly hampered, the cloudy swelling of the cells may apparently advance to the more serious and irrecoverable condition of fatty degeneration.

As is well known, the fatty degenerated form of nephritis, the "fatty and contracted" or "secondarily contracted" kidney, is a really hopeless form of Bright's disease, as far as hopelessness may be asserted in the absence of an actually moribund state. Yet the text under consideration, as well as others, barely separating them as subdivisions of the same process, associates such terminal conditions in one group with those instances of the cloudy swollen kidney which happen to have continued for some period beyond the course of the infection which they originated, and the more serious prognosis, the disposition of a careless physician to give up to what he accepts as inevitable, comes to be attached to the latter cases, possibly recoverable, as well as to the former, which may properly be regarded as hopeless. It is in this feature that the writer finds the special application of the terminology above discussed. The types included by Osler under the general

group of chronic parenchymatous nephritis should, the writer would urge, be clearly separated, and to these cases the terms *acute* and *chronic* should be applied as indicating in the one variety a relatively hopeful prognosis and in the other the idea of irremediability, apart from the questions of duration of course or the uniformity or severity of symptoms. He would suggest that a cloudy swollen kidney should and fairly can be denominated acute Bright's disease, whether it has had a duration of two days, two weeks, two months, or two years—just as long, in fact, as there is no evidence that the recoverable type of cellular change known as parenchymatous degeneration or cloudy swelling continues without having become complicated or replaced by the serious and essentially terminal degeneration known as fatty degeneration. And the writer would also urge that, of the kidneys whose parenchyma is the main seat of change, only those be accepted as chronic which present evidence of such fatty change. To the writer's mind there is no question that Osler confuses these two types in his description of chronic parenchymatous disease. They are specifically referred to as subdivisions under the terms "large white kidney" and "secondarily contracted" or "small white kidney." There is, however, no serious difficulty in clinically differentiating them, except during the period of transformation of the first into the second—a period, of course, ordinarily of some duration. A patient having recovered from the postinfectious anemia does not present the cachectic appearance, even though his kidneys are in a state of cloudy swelling, which is characteristic of the terminal degeneration and contraction of the kidneys. The cardiac notes and pulse in the first do not denote the vascular tension apt to be present in the latter; the alimentary and general nutritive disturbances of the first are not likely to be comparable to those of the second. The urine is ordinarily distinctive. The specific gravity and the content of urea are less disturbed ordinarily in the first than in the second; the proportion of albumin is not so high; the casts are limited to the hyaline, granular and epithelial types, while in the second there are found oil casts, compound granule cell casts; typically, too, in the latter there are found more broad casts than in the former.

From such presentation then it seems clear that in this instance, based merely upon our older conceptions of the terms *acute* and *chronic*, there has occurred an unwarrantable separation into two groups of cases of one essential disease process and one of these groups has been confused with a disease very different from the formation of the author's *acute Bright's disease*. There is likewise an equal confusion of the more protracted cases of the same essential process with a far more serious and an irremediable type of degenerative affection of the kidneys. It would seem much preferable to accept the idea that the term *acute* does not necessarily mean any actual period of time in such instances; but that in the interest of a clear recognition of real pathological conditions all cases of cloudy swelling of these or-

gans should be retained in a single group, spoken of as *acute parenchymatous nephritis*, because of the possibility of limitation within the life of the patient, and that they should be separated on the one hand from the large red kidney (which may fairly be denominated an *acute formative nephritis*), and on the other hand from the true *chronic degenerative nephritis* or fatty and contracted kidney, to which we know no limitation save in the death of the patient.

Other illustrations of similar confusion and sometimes absurd application might be cited; but what has been above outlined seems fairly expressive of the objections which can be brought forward. The writer is no lexicographer, and has a natural disinclination to become a modifier of forms which time and custom have established or sanctioned; but in this there appears a real need of some modification, which indeed has already been accepted tacitly, and only needs formal recognition and application. With such a sense it would seem that some definition as the following might well be assumed for these terms:

Acute, as applied to a pathological process indicates of such a disease that it runs a fairly regular and limited course; such course being frequently, although not necessarily, attended by severity of symptoms, and the limitation being possibly in recovery.

Chronic may be applied in conditions presenting no definite duration, more or less irregularity in the presentation of symptoms, a variable severity of symptoms, and ordinarily limited only by the death of the patient.

NEURASTHENIA.*

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THE condition I desire to discuss under the name of neurasthenia is not new, but its clinical boundaries have been more clearly defined, its cause, course, and management better understood during the two decades just past than during 100 preceding years. Conditions referred to by Hippocrates and his successors in medical history show that the affection was recognized but very imperfectly described under a multiplicity of names.

In 1870 the first accurate description of this disorder was placed on record by Beard, an American physician to whom we owe honor for many superior clinical observations and therapeutic suggestions. He coined the name "Neurasthenia." About this time Bouchet, a French physician, aroused the old world to a more lively appreciation of the distinctive characteristics of this disorder. Like Tesla and Marconi in the realm of electrical study these two physicians gave great impetus to closer clinical observations of the nervous system.

Men appreciating the major importance of the nervous system have, during the past 20 years, evolved and classified a wonderful array of facts

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concerning the mental and nervous workings of the human body. The clinical results published in journals and text-books radiating from every point of the compass are replete with a discrimination of facts so rationally describing the phenomena of neurasthenia that our knowledge concerning it has progressed by leaps and bounds over that of any other neurosis.

When the medical faculty of America were aroused by Beard to its perception, Continental physicians styled it the American disease, a product of modern civilization. This is true only in so far as the high nervous tension in the commercial, professional, educational and social life of Americans exceeds that of Europeans. Frequency of the disorder varies with locality in the United States. The higher altitudes of this Northwest country, and strenuous efforts in every vocation, produce a greater percentage of neurasthenics than is found in the Eastern and Southern States where humidity prevails and less nervous energy is expended.

It is uncommon before the twentieth and after the fiftieth year of life. It is of about equal frequency in the sexes. All forms of nervous energy are affected, and fatigue comes more quickly than in health. The vital forces are below par in the individual, consequently irritability is more easily established. This is especially noticeable in the mental sphere.

With this history, we must conclude that the condition termed neurasthenia is a primary affection of the nervous system. Doubtless hereditary defects render the individual more liable to bankruptcy of the nervous system than is common to a person of better inheritance under similar environments. A sound nervous system is an inheritance that work and worry can scarcely overturn for any prolonged period.

The unstable constitution is a neurasthenic in latency, needing only some shock, moral or physical, to evolve neurasthenic symptoms. An education that omits the discipline and self-culture which enables a man to properly conserve and utilize his nerve-forces poorly fits that man for the varying vicissitudes of life. The working capacity of an individual varies with his endowments. Educational methods that project the mental in advance of the physical development of the child invite disaster to the nervous system when the race for existence is on. Anxiety and worry depress the patient and at the same time impel him to greater efforts in functioning and finally weakened nervous system.

The devoted mother, after weeks of care and watchfulness, finally "goes to pieces" when her vigils have ceased. Her mental desires goaded the nervous system until, like the overtrained athlete, it has gone "stale."

Poisons from without, when introduced into the system and not promptly eliminated, destroy nerve-force, causing nature to cry out by a train of symptoms indicative of depressed psychic and motor power. We have all experienced a mental hebetude and lethargy with varying degrees of discomfort consequent upon indulgence of the

palate. In a predisposed neuritic this is a fertile exciting cause of neurasthenia. Overexertion causing muscular strain; stimulation with narcotics; excessive indulgence in the natural or perverted functioning of the reproductive organs, causes nervous fatigue earlier than it would be experienced by the individual in his normal state. When the functioning power of any department, physical or mental, has been exercised to a point beyond the actual capitalization of nerve-force in the individual, neurasthenia is a natural sequence. Neurasthenia is in many instances symptomatic of organic disease.

In the early stages of interstitial nephritis and rheumatic attacks, neurasthenic symptoms are frequent. Probably phthisis is the most common organic affection suggested by persistent neurasthenic symptoms, when neither physical nor microscopical examination will reveal the tubercular germ. Injuries are the proximate cause of neurasthenia in a rapidly increasing number of instances. "Traumatic" neurasthenia occurs most frequently when there has been no gross lesion to the nervous system. It is the result of psychic rather than physical shock. Neurasthenics from trauma constitute a domain for discussion precluded by the limits of this paper.

Hereditary influences through paternal neuroses or organic disorders, like tuberculosis and syphilis, make neurasthenia possible under conditions which, had not inherited depravity prevailed, would have proved sterile. Those who inherit a sound nervous system require greater strain to transform them into neurasthenics. If the want of adequate physical development in our modern high-school course does not cause neurasthenia in all who master the curriculum, the further pursuit of this nerve-exhausting course by business and professional men is evidenced in the sign, "Gone to dinner—back in 20 minutes."

From those who never attempt the intellectual avenues for earning a livelihood the child-labor in stores, manufactories, and sweat-shops, conducted for revenue only, will rapidly supply society with many neurasthenics. Be he educated or ignorant, such pursuits bring physical and mental disaster to the individual.

Pathology.—We know of no pathological anatomy peculiar to neurasthenia. Diminished dynamic energy and lessened recuperative power in the nervous structures is the condition we meet. "Impaired metabolism, with accumulation of waste products, which in turn accumulate in the blood, give rise to auto-intoxication especially affecting the nervous system, and the functions over which the nervous system presides are correspondingly impaired." With this idea in mind we are better prepared for a rational apprehension of symptoms and their requirements in treatment.

Symptoms.—The symptoms are very easily arranged under motor or sensory disorders without implication of any special organs; those manifested by some one of the special senses; those centered in the gastro-intestinal, circulatory, renal or reproductive organs; and the

psychical form, which more than all others needs intelligent and patient investigation with a positive and inspiring individuality in the medical attendant and nurse. The division into cerebral, spinal, gastric, traumatic and individual forms of neurasthenia is certainly confusing, if not misleading. Neurasthenia is a condition of lowered vitality in which functional balance is lost, giving rise to many obvious manifestations in some particular part of the nervous system. Deficiency, but never absolute want of function, is always a neurasthenic symptom. Diminished motor action and want of sustaining power is its characteristic. Muscular tremor is a common manifestation, usually excited by trivial muscular efforts. Writing with a pen will quickly induce trembling and fatigue of the muscles occupied. Walking or standing soon causes fatigue. All the reflexes are apt to be increased. Repeated testing of the reflexes is soon followed by diminished response, showing early fatigue of the nervous mechanism involved.

In the realm of the sensory nerves, there is never actual loss of sensation in neurasthenia. Almost limitless subjective sensations, varying from decided pain to all degrees of parasthesias and hyperesthesias, are manifested. Paralysis of the sensory, like paralysis of the motor nerves is not in the syndrome of neurasthenia. A feeling of weariness and exhaustion is its characteristic symptom. Paralysis and anesthetics are exceedingly common in hysteria, but are never a part of the clinical picture in a pure case of neurasthenia.

Headache, with varying manifestations, is practically never absent from a neurasthenic. A feeling of pressure in the head, occipital pain and "drawing" sensations at the nape of the neck are the usual complaints. Backache referable to the kidneys is a sensory factor from which the patient seeks relief by a pillow to the back while sitting or reclining. This same expedient is utilized for the protecting of hyperesthetic and migratory painful points along the course of the spinal column. Sensations of prickling, tightness, numbness, heat, cold and soreness are referred to different regions of the trunk and limbs. Heart-beats in the wrong place, breathing with but one lung, apnea, creeping sensations always beginning at a certain point and traversing a particular route in their course, are among the host of abnormal thoracic and abdominal feelings. More specifically, because of apprehension of ultimate sequence with the matrimonially inclined, are the complaints referred to the reproductive organs. Diminished sexual power is a more frequent complaint of the male than of the female.

Eye-symptoms of fatigue, blurring of the letters, and photophobia, cause apprehension of a serious sequence in these organs. The auditory nerve is easily irritated by sounds of common occurrence not annoying to one in health. Perversions of the olfactory and gustatory sense give rise to a suspected lesion in these organs.

Gastro-intestinal disorders, variously described, but commonly known as "nervous dyspepsia" are

indispensable in the syndrome of neurasthenia. The eructations, gas-formation, and obstipation, are proximate results of unwise alimentation, the neuritic symptoms being effects rather than causes of the indigestion.

In the circulatory system a rapid tumultuous heart, a weakened peripheral pulse, cold extremities and varying vasomotor changes are the rule.

Neurasthenics have but little desire for water. The urine is scant, frequently voided, irritating, and productive of vesical discomfort during micturition. With diminished volume, the normal of solid excretions increases the specific gravity. If to this be added the excess of solids, called by some "the ashes of the nervous system," caused by the high nervous tension, the specific gravity rises to an alarming height. In the hysteric, the urine is copious, light-colored, and as a rule of low specific gravity, even when it is retained, as is often the case, many hours beyond the normal time for the evacuation of the bladder.

Last, but of greater importance to the physician, are the symptoms pertaining to the psychical side of the neurasthenic. Like the motor and sensory, they also are characterized by weakness and irritability. Prolonged mental effort is impossible. Attempts at centering the intellectual faculties on any one subject for even a brief period, result in a projection of thoughts as uncertain in course and unlike in color as the projectiles from a lot of fireworks. Ideas do not arise with their usual vigor and rapidity, causing the patient to believe that he cannot think.

In hysteria, ideation is active, conclusions quick and positive. The neurasthenic is introspective and prospective; self-interests are paramount to those of his family or dependents. He ever sees new symptoms of an apprehensive nature. He is anxious, and without solicitation relates every symptom in detail. Each subsequent interview, he adds new symptoms and embellishes the old. He shuns motor exercise, but studies the easy-chair or recumbent position with complacency.

The hysteric talks only when interrogated. With him, voluntary information is at a premium, but clownish contortions can be seen without request.

The neurasthenic is depressed, but ever anxious for recovery. He consults many physicians, is not suicidal, and is free from delusions that reasoning will not dislodge. The true melancholic is depressed without hope, declines medical aid, is often suicidal, and his delusions are positive; often they are even intensified by the rational logic of friends who would dispel them.

The neurasthenic can always be made to recognize the baselessness of his fears though he be unable to banish them. If these apprehensive ideas are beyond the power of liberation by the action of mind over mind, they have passed from neurasthenia over the borderland into insanity. In the neurasthenic person sleep is commonly disturbed. The patient has difficulty in getting to sleep, or goes to sleep quickly and wakes at regular periods when all nature should be sleeping, and cannot resume his slumbers until the hour

when all well-regulated people should be awake. Even if sleep comes for a sufficient number of hours he awakes with a feeling of great muscular and mental fatigue.

If the hysteric lie awake she will make sure that her retinue of attendants do not sleep during the night, but the patient will enjoy the sleep of the righteous during the entire day following. Fear from a subjective conception and danger from an objective perception characterize the neurasthenic, but present no terrors to the hysteric.

Treatment.—It is often said that with the diagnosis of nervous disorder the physician's usefulness ends. Never was a more erroneous conclusion announced. The amount of good that can be done in nervous affections usually regarded as intractable measures favorably with results in any other department of medicine. What nervous disorder is less responsive to treatment than we see any day in cirrhosis of the liver, hepatic disorders, or cancer in any tissue? Given an appreciation of the conditions to be met, a knowledge of the measures that experience has shown to be of value, with judgment and art in their application to selected cases, and we see results no less brilliant than in any other department of medicine. We must know that cell-life in nervous tissue more than any other requires a long period for repair.

Every physician is aware that neuritis following erysipelas, the paralysis consequent upon diphtheria or typhoid, and the neuritic affections incident to a dislocation or fracture are much longer in healing than the original disorder. Let us manage our neurasthenic patients so as to conserve their nervous force, with a consistency comparable to the restrictions we put upon expenditure of their physical force during a purely medical or surgical case.

The division by Berkley into the hygienic, dietetic, and medicinal treatment of neurasthenics is an admirable one. The hospital with its environments and the private home where trained nurses are admitted make possible the systematic application of these measures. Success in the treatment is wholly dependent upon environments and time, with a knowledge of resources and art in applying them as the exigencies demand. When we obtain compliance by the patient with the necessary conditions, as in serious surgical cases, our ability for relief or cure will be at a premium.

The use of the bath, its temperature, duration, frequency and the time of day it should be used, must be graduated to the individual. The nervous system is responsive to climatic conditions. If arteriosclerosis be not present or probable those excitable people whose emotions are easily swayed generally improve in the higher altitudes. Those of the bilious type and slow digestion do better in the localities where cutaneous elimination is facilitated. The daily plan of each patient for recreation, work and sleep must be systematically prearranged by his physician, and its performance initiated but not executed by the nurse.

The patient's judgment is not a safe guide in

these matters. Neither is he to decide his dietary. The majority of neurasthenics are anemic, have capricious appetites, are apprehensive, and actually increase their sufferings by starving their systems. Three meals daily are not always best for those of slow digestion. Some with noticeable digestive troubles do better if fed regularly four to six times daily on foods requiring but little digestion. It is best to begin feeding them a limited variety, adding to the list suitable articles as the case will permit. This pleases the patient, has a happy psychical effect, and gradually restores the digestive and assimilative tissues.

It is easier to say what shall not than what may be included in the diet. In general, the salted meats (fresh pork, too), cooked cabbage (not the raw), turnips, carrots, beets, radishes, potatoes and other starchy foods of the saccharine class; sweets, pastries, bananas, strawberries, coffee and tea, are proscribed. Liquids (but never alcoholic) should be generously prescribed. Water is usually shunned by neurasthenics. It should be copiously used but not at the meal-time. Slowly sipping a glass of very hot water one-half hour before each meal is often of great benefit to an atonic stomach. Saline and lithia drinks assist in lessening fermentation in the alimentary canal.

The administration of some hot broth or milk just at bedtime often quiets and induces sleep in a nervous patient. The neurasthenic should be encouraged. The enfeebled will-power is strengthened by sympathy judiciously administered. Derision on the part of physician and friends is good medicine for a hysteric, but will drive the neurasthenic with increased misery to greater abandon. The patient must be led out of his exhausted state with the firmness and persistency necessary to evolve the plan of treatment decided upon. Hypnotism still further exhausts the weakened nerve-powers. In severe cases, where the family have become servants to every whim of the patient, removal to wholly new environments among entire strangers is a necessary condition for the moral effect in treatment.

Gentle faradization to the muscles is useful, but galvanism to the nerve-centers is apt to further exhaust cell-power. Hydrotherapy, rubbing, kneading, and massage of the entire body, short of fatigue to the patient, are preeminently useful measures. Medical treatment is last in order, the least beneficial, and withal the hardest to avoid giving. Most neurasthenics are drug-fiends. Every new symptom calls for additional medicine. If their degeneracy does not cause craving for drugs their friends, and too often the doctors, encourage specifics, until, in addition to their already deplorable condition, the drug-habit is fastened upon them.

When recourse is had to drugs iron is of first importance. Usually in some form of the peptonates it is most acceptable to the stomach and assimilative organs. Gentian or any of the bitter drugs, combined with strychnine and glycerin are the most useful general tonics. Alkalis are of great service in neurasthenias. The glycerol-

phosphates of lime and soda have given good results in my experience. Fluid extracts of aqueous solutions (instead of tinctures) should be used to avoid the alcohol, as we use the glycerin instead of a saccharine menstruum. If stomachic fermentation be present acid hydrochloric with pepsin is indicated. However, in much the greater number of cases, the fermentation is intestinal, where an alkali and pancreatin alone is useful.

For hypnotics, trional and the bromides given in hot milk or broth are the most useful. Opium and its derivatives, with alcohol in every form, are to be avoided. Constipation is best treated by gradually decreasing doses of salines with increased ingestion of water.

A STUDY OF SEX-PRODUCTION IN MAN.

BY LOUIS KOLIPINSKI, M.D.,
OF WASHINGTON, D. C.

THE cause of sex-production has given rise to many theories, ingenious or impractical. Volumes have been filled with much collateral information to make each one more plausible. None so far has proven in any way satisfactory, and the subject remains a mystery in science.

This simple study of sex-production in man had its inspiration in a long professional acquaintance with two couples, interrelated, neighbors and intimates.

The habits, tastes, ideas, associations, social station, education and religion of these persons were the same. Their characters were strongly dissimilar. The first husband and wife were cousins. He was quiet, unobtrusive, lacking in energy and enterprise. She was the opposite in a marked degree. Conscious of this, she declared that she possessed the "stronger will." They had two children, both females.

The second husband was firm in his opinions, and found it hard to yield to persuasion. The wife—sister to the first man—was vivacious, light-hearted, sympathetic, pliant and yielding. Her character is well described by the phrase "a womanly woman." Their offspring in succession included three boys and one girl.

Starting with the assumption that *the parent of stronger will reproduces his own sex first*, the records of births of a considerable number of families, all personally known to the writer, were collected.

Such work, as done by a single investigator, cannot be made absolutely accurate. The most frequent source of error is the possibility of early abortion. Again, correct information may be withheld through suspicion or occult reason. In the aged the recollection of childbirth is imperfect. A mother may have forgotten the sex of her children in their order, particularly in the instance of still-birth or of infants that died.

The general tables compiled from these researches may contain a few such errors; as a whole however, they serve their purpose; namely,

to show that there are two types of four classes each in which all progeny can be arranged. To this rule there are no exceptions. Whether the will in its intensity and variety can be considered a reliable criterion for predicting the sexuality of offspring remains to be proven.

The parent of "stronger will" invariably reproduces his own sex first. The greater the difference in this respect between man and woman the more does the one or the other sex first predominate. A father with the strongest of wills and a mother of the weakest procreate from three to five or more sons before a single daughter is born. There has been an attempt to show in the tables that the varying force of this mental quality may explain the existence of the different classes as there arranged. The writer has not been able to find any previous attempt of this kind in any of the modern and recent works on this subject.

In holding that the will of the parent is the factor that determines sex it is not thought that a method is offered either easy or exact in application. In general the theory seems correct; in detail the problem grows intricate.

Will, as here used, is understood to mean the degree of persistency with which man adheres to his thoughts and ideals and acts thereupon. The more correct these are the more developed will be this quality. Will is synonymous with *decision, determination and resolution*.

To give a clear definition of this simple word is no light task. In common speech a strong will means that of a determined, resolute person. It is most often confounded with obstinacy, in which, as a fact, the will is weak. In ordinary conversation the compound word "will-power" signifies its force and persistency.

To gage its degrees will obviously fail of accuracy. Considered as a measurable quantity, opinion and judgment must vary. Many a person exists whose strength of will cannot be discovered for want of opportunity to test it. How much it varies at different periods of life must likewise be fixed. Wherein and how it is changed by process of disease and by intoxicants must also be established.

The attempt to make it of four degrees of intensity is arbitrary. It is only in a strictly comparative sense that it is thus applied. A standard for the single individual is not attempted, unless his life-history be known. The four degrees are: (1) Negative, as compared to his mate; (2) the ordinary form; (3) a will that is strong, and (4) the most active and pronounced kind.

In this classification the first three births were used as a basis for the reasons which follow. Many families have but one or two children, either because the marriage is of short duration, because of the death of one of the parents, or from disease of father or mother or of both. Such unions yield records too imperfect to be of any use. On the other hand, in collecting the statistics of aged couples the uncertainties of memory are apt to vitiate the results. The three-

birth type was hence found most reliable and represents a fair mean.

The births arranged in order of sex after this manner fall into two types, male and female, each of four classes:

1 Boy Boy Boy	1 Girl Girl Girl
2 Boy Boy Girl	2 Girl Girl Boy
3 Boy Girl Boy	3 Girl Boy Girl
4 Boy Girl Girl	4 Girl Boy Boy

General Tables of Births by Sex in 192 Families.—Abbreviations and numbers: F, father; M, mother. 1, 2, 3, 4, degrees of relative strength of will in father and in mother. B, boy; G, girl; (), twins; a, abortion.

TABLE I. MALE TYPE BBB.

[illegible]

TABLE II, MALE TYPE BBG.

[illegible]

TABLE III. MALE TYPE BGB.

[illegible]

TABLE IV. MALE TYPE BGG.

[illegible]

13	M ₃	F ₂	BGGGBG	.....	2	4
14	M ₃	F ₂	BGGGB	.....	2	3
15	M ₃	F ₂	BGGBB	.....	3	2
16	M ₃	F ₂	BGGBB	.....	3	2
17	M ₃	F ₂	BGGBG	.....	2	3
18	M ₃	F ₂	BGGBG	.....	2	3
19	M ₃	F ₂	BGGG	.....	1	3
20	M ₃	F ₂	BGGB	.....	2	2
21	M ₃	F ₂	BGG	.....	1	2
22	M ₃	F ₂	BGG	.....	1	2
23	M ₃	F ₂	BGG	.....	1	2
24	M ₃	F ₂	BGG	.....	1	2

TABLE V, FEMALE TYPE GGG.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

1	M ₄	F ₁	GGGGaBGGGGaBGBG	.....	G	B
2	M ₄	F ₁	GGGGBBBGGGGGB	.....	10	4
3	M ₄	F ₁	GGGGBBGGGBB	.....	6	5
4	M ₄	F ₁	GGGGBBGBGG	.....	7	4
5	M ₄	F ₁	GGGGBBBB	.....	5	4
6	M ₄	F ₁	GGGGBGGGB	.....	6	3
7	M ₄	F ₁	GGGGBBGBB	.....	4	5
8	M ₄	F ₁	GGGGBBBB	.....	5	4
9	M ₄	F ₁	GGGBBBGB	.....	4	4
10	M ₄	F ₁	GGGGGBG	.....	6	1
11	M ₄	F ₁	GGGBGGG	.....	6	1
12	M ₄	F ₁	GGGGGG	.....	6	0
13	M ₄	F ₁	GGGGBG	.....	5	1
14	M ₄	F ₁	GGGBGG	.....	5	1
15	M ₄	F ₁	GGGGGB	.....	5	1
16	M ₄	F ₁	GGGBBG	.....	4	2
17	M ₄	F ₁	GGGBG	.....	4	1
18	M ₄	F ₁	GGGBa	.....	3	1
19	M ₄	F ₁	GGGaB	.....	3	1
20	M ₄	F ₁	GGGG	.....	4	0
21	M ₄	F ₁	GGGB	.....	3	1
22	M ₄	F ₁	GGGG	.....	4	0
23	M ₄	F ₁	GGGB	.....	3	1
24	M ₄	F ₁	GGGB	.....	3	1
25	M ₄	F ₁	GGGB	.....	3	1
26	M ₄	F ₁	GGG	.....	3	0
27	M ₄	F ₁	GGG	.....	3	0

TABLE VI, FEMALE TYPE GGB.

1 2 3 4 5 6 7 8 9 10 11 12 13

1	M ₄	F ₁	GGBGBGBBGBB	.....	G	B
2	M ₄	F ₁	GGBGBGBGBB	.....	5	5
3	M ₄	F ₁	GGBBGBBB	.....	3	6
4	M ₄	F ₁	GGBBBBGGG	.....	5	4
5	M ₄	F ₁	GGBBGG	.....	4	2
6	M ₄	F ₁	GGBBBB	.....	2	4
7	M ₄	F ₁	GGBBGB	.....	3	3
8	M ₄	F ₁	GGBBGG	.....	4	2
9	M ₄	F ₁	GGBBB	.....	2	3
10	M ₄	F ₁	GGBGB	.....	3	2

11	M ₃	F ₂	GGaB	.....	3	1
12	M ₃	F ₂	GGBG	.....	3	1
13	M ₃	F ₂	GGBaB	.....	2	2
14	M ₃	F ₂	GGBB	.....	2	2
15	M ₃	F ₂	GGBG	.....	3	1
16	M ₃	F ₂	GGBB	.....	2	2
17	M ₃	F ₂	GGB	.....	2	1
18	M ₃	F ₂	GGB	.....	2	1
19	M ₃	F ₂	GGB	.....	2	1
20	M ₃	F ₂	GGB	.....	2	1
21	M ₃	F ₂	GGB	.....	2	1
22	M ₃	F ₂	GGB	.....	2	1

TABLE VII, FEMALE TYPE GBG.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

1	M ₃	F ₁	GBGGGBGGGBBGG	.....	G	B
2	M ₃	F ₁	GBGBBBBGGGBG	.....	5	6
3	M ₃	F ₁	GBGGGGGGGBB	.....	8	3
4	M ₃	F ₁	GBGBGGGBGaGB	.....	7	4
5	M ₃	F ₁	GBGGGBGBGBG	.....	6	4
6	M ₃	F ₁	GBGGGGGBB	.....	5	4
7	M ₃	F ₁	GBGGGBBBB	.....	4	5
8	M ₃	F ₁	GBGGGGGG	.....	7	1
9	M ₃	F ₁	GBGBBGBG	.....	4	4
10	M ₃	F ₁	GBGBGBB	.....	4	3
11	M ₃	F ₁	GBGGGBG	.....	5	2
12	M ₃	F ₁	GBGBGB	.....	3	3
13	M ₃	F ₁	GBGGBB	.....	3	3
14	M ₃	F ₁	GBGBBB	.....	2	4
15	M ₃	F ₁	GBGBBB	.....	2	4
16	M ₃	F ₁	GBGBGG	.....	4	2
17	M ₃	F ₁	GBGBBG	.....	3	3
18	M ₃	F ₁	GBGBB	.....	2	3
19	M ₃	F ₁	GBGG	.....	3	1
20	M ₃	F ₁	GBGB	.....	2	2
21	M ₃	F ₁	GBG	.....	2	1
22	M ₃	F ₁	GBG	.....	2	1

TABLE VIII, FEMALE TYPE GBB.

1 2 3 4 5 6 7 8 9 10 11 12 13

1	M ₃	F ₁	GBBBBBGGGG	.....	5	5
2	M ₃	F ₁	GBBGBBBGG	.....	4	5
3	M ₃	F ₁	GBBGBGBG	.....	4	4
4	M ₃	F ₁	GBBBBBG	.....	2	5
5	M ₃	F ₁	GBBGBG	.....	3	3
6	M ₃	F ₁	GBBBGBaa	.....	2	4
7	M ₃	F ₁	GBBBB	.....	1	4
8	M ₃	F ₁	GBBGG	.....	3	2
9	M ₃	F ₁	GBBBB	.....	1	4
10	M ₃	F ₁	GBBGG	.....	3	2
11	M ₃	F ₁	GBBB	.....	1	3
12	M ₃	F ₁	GBBB	.....	1	3
13	M ₃	F ₁	GBBG	.....	2	2
14	M ₃	F ₁	GBBG	.....	2	2
15	M ₃	F ₁	GBBB	.....	1	3

M ₃	GBBB	1	3
16 F ₂	GBBB	1	3
M ₂	GBBB	1	3
17 F ₂	GBBB	1	3
M ₄	GBB	1	3
18 F ₃	GBB	1	3
M ₃	GBB	1	3
19 F ₃	GBB	1	3
M ₃	GBB	1	3
20 F ₂	GBB	1	3
M ₃	GBB	1	3
21 F ₂	GBB	1	3

SUMMARY OF GENERAL TABLES.

Male Type	Families	Boys	Girls	Children
I BBB	20	87	28	115
II BBG	30	107	67	174
III BGG	26	103	59	162
IV BGG	24	62	86	148
	100	359	250	509
Female Type	Families	Boys	Girls	Children
I GGG	27	50	130	180
II GGB	22	53	63	116
III GGG	22	67	92	159
IV GBB	21	65	41	106
	92	235	326	561
Totals	192	594	576	1,170

TABLE.

The eight classes arranged as to strength of will in the parents.

No. of Families	1	2	3	4	Unknown
BBB	20	19	1	11	7
BBG	30	10	6	18	1
BGB	26	1	4	12	3
BGG	24	1	14	8	1
GGB	27	13	8	1	2
GGB	22	6	10	1	6
GBG	22	4	11	1	6
GGB	21	9	7	1	5

As a result of information gathered in this research it is possible to examine the correctness of a number of propositions that have been put forth on sex-production and sex-determination.

1. *That there are born more males than females.*—In the tables the total births are 594 boys to 576 girls, or 103 to 100. Hensen, in Hermann's Physiologie, Vol. VI, quotes European statistics: 59,350,000 births; 100 girls to 106.3 boys.

2. *Twin births occur once in 80 to 90 single births; more twin boys than twin girls, and mixed twins more numerous than either.*

In the 1,170 births, twins 15 times, or 1 to 78; boys, 6; girls, 5; mixed, 4.

3. Hofacker = Sadler's Law. *That older fathers produce more boys, and that wives older than their husbands produce more girls.* This law is correct when interpreted in the light of the theory here advanced. That women who marry younger men, and men who marry younger women, theoretically possess the "stronger will" cannot be denied; therefore they reproduce their own sex first, and consequently in any considerable number that sex is in excess; likewise in single instances of a not too numerous family the chances are all in favor of this same preponderance.

4. *That prostitutes give birth to boys.* Since crime, depravity and the outcast existence of such females is not conducive to strength of will, this statement can be considered correct.

5. *That Jews produce more boys than the people of the race or nation with whom they live*

(Hensen, v.a.). The following table shows an excess of boys over the average.

HEBREW FAMILIES.

	1	2	3	4	5	6	7	8	9	10	11	12
1	B	B	B	B	G	B	G	B	B	G	G	
2	B	B	B	B	B	B	B	B	B	B	B	
3	B	B	B	B	B	B	B	B	B	B	B	
4	B	B	B	B	B	B	B	B	B	B	B	
5	B	B	B	B	B	B	B	B	B	B	B	
6	B	B	B	B	B	B	B	B	B	B	B	
7	B	B	B	B	B	B	B	B	B	B	B	
8	B	B	B	B	B	B	B	B	B	B	B	
9	B	B	B	B	B	B	B	B	B	B	B	
10	B	B	B	B	B	B	B	B	B	B	B	
11	B	B	B	B	B	B	B	B	B	B	B	
12	B	B	B	B	B	B	B	B	B	B	B	
13	B	B	B	B	B	B	B	B	B	B	B	
14	B	B	B	B	B	B	B	B	B	B	B	
15	B	B	B	B	B	B	B	B	B	B	B	
16	B	B	B	B	B	B	B	B	B	B	B	
17	B	B	B	B	B	B	B	B	B	B	B	

Boys, 54; girls, 43.

6. *That male drunkards produce boys.* The appended table, though small, seems to confirm this. Whether it is the result of the chronic alcoholic poisoning of the fathers, or whether it results from the cowed and miserable state of the mothers, common to the majority of such unions, others may decide.

FAMILIES OF MALE DRUNKARDS.

	1	2	3	4	5	6	7	8
1	B	B	B	B	G	B	B	B
2	B	B	B	B	G	B	B	B
3	B	B	B	B	G	B	B	B
4	B	B	B	B	G	B	B	B
5	B	B	B	B	G	B	B	B
6	B	B	B	B	G	B	B	B
7	B	B	B	B	G	B	B	B
8	B	B	B	B	G	B	B	B
9	B	B	B	B	G	B	B	B
10	B	B	B	B	G	B	B	B

Boys, 28; girls, 21.

In conclusion, a word in criticism of the work of others on this mysterious and fascinating subject. The producers of the modern theories on the law of sex have given much time and labor to argument in support of their views. Animate nature, throughout the high and low organizations, has been examined and compared; but it is strange to observe that man has been studied collectively, and in the individual hardly at all.

GENERAL REMARKS ON NASAL OBSTRUCTION.*

BY JOHN A. DONOVAN, M.D.,

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THE importance of a perfectly normal condition of the nose is but seldom considered by the average physician in routine work, yet our very existence depends on a proper supply of air reaching the lungs.

The cosmetic effect of the nose is in itself to many a sufficient reason for much study. Aside from this it is an organ of expression and of taste, with vocal, olfactory, respiratory and auditory functions. By far the most essential function is that of respiration.

Before reaching the lungs air should be properly humidified, warmed, filtered and freed from

* Read before the Montana State Medical Association, at Anaconda, at the meeting held May 21 and 22, 1902.

infectious matter, all of which takes place within the normal nasal chambers. When we consider the necessity to every human being for 686,000 cubic inches of ordinary air in 24 hours, humidified by the evaporation of approximately one pint (500 c.c.) of fluids, raised to the proper temperature, freed from foreign substances, etc., all accomplished within so apparently small a cavity, it is almost hard to overestimate the importance of the anatomical relations of the nose and its physiological activity, not to mention the pains and disagreeable local conditions accompanying obstruction, or the material alteration of this amount of fluid, which equals one-third of the excretions from the kidneys or the toxemias following the disintegration and absorption of pent-up secretions.

It is not my intention to burden you with minute anatomical, physiological or pathological data, for to the aspirant in nasal surgery, nothing but a complete mastery of the nasal structures, learned after much careful study, is of any avail. On the relative importance and proper relations of its anatomical parts depends the effect of the currents of air on neighboring structures. These neighboring structures in turn, by occlusion, pressure, irritation, infection or protection of adjacent parts exert still wider influence. In no department of surgery does the average physician feel more sure of his complete competency to master the conditions than here by simply procuring a cautery, some acids and a spray; to no other organ is so much irreparable damage done by the lack of a proper appreciation of its normal functions.

Occlude the nose, and immediately we have the direct entrance of air at all temperatures, laden with dust and all kinds of material in its original dry state, passing almost directly into the sensitive larynx and so down to the lungs. As a direct result we see the large lips, the coated tongue, the engorged pharynx, congested larynx, trachea and bronchi of the mouth-breather. Add to this the enlarged tonsils and adenoids that in children frequently accompany or produce this condition, and we have the common characteristics—stupid appearing face, general appearance of poor oxidation, stooped shoulders, pigeon-chest, with undeveloped mental faculties—poor memory, lack of perception and expression, poor hearing, etc. In adults we have also neurasthenia, headache, insomnia, melancholia and vertigo. These patients also suffer from attacks of tonsillitis, otitis, conjunctivitis, lachrymal stenosis, constantly recurring colds, coryza, hay-fever, pharyngitis, laryngitis, bronchitis, gastro-intestinal catarrhs, auto-intoxication, asthma, croup, aphonia, hoarseness, etc., with every change in temperature surroundings, all predisposing them to tubercular conditions.

The physical examination of the nose in these conditions almost always reveals engorged turbinate bodies, spurs or deflected septum. McKenzie found in 2,000 skulls that 77 per cent. had deflected septa. It is here that a perfect knowledge of the normal anatomy and physiology of the nose

is absolutely necessary, for a very slight deflection of the septum or a small spur may be sufficient to deflect the current of air, before it has an opportunity to be warmed and moistened, directly against a part not intended for its reception, so that the air acts as an irritant. This in turn, through contact, irritates adjoining structures, retarding evaporation and excretion. Thus our attention is occupied by the conditions producing the immediate symptoms for which our patient seeks relief, while in our eagerness to get results we overlook the primitive cause. Though I would by no means advocate the straightening of every septum, yet I believe, as stated by Dr. Pynchon, that very slight deviations at times are the cause of many of the graver symptoms. Personally I am indebted to Dr. Robert Levy, and later to Dr. Frank H. Bosworth, for much relief from a persistent laryngitis by the removal of a small septal spur. Had not all other treatment failed I could hardly have been convinced that this was the cause of so many attacks of coryza.

In Butte we have an unusually large proportion of catarrhal deafness. One cause is no doubt our local conditions, with an altitude of one mile; yet in almost all of these patients will be found pathological condition of the nose. I have recently had several cases showing a very decided septum deviation, and strangely enough the surgeons had advised removal of the enlarged turbinates, which nature had generously provided in an endeavor to compensate for the abnormally large opening on one side, thereby entirely overlooking the fact that the ear corresponding to the more open side is always the more affected.

For the general physician, who meets so many cases of hacking cough, hay-fever, asthma, hoarseness, bronchitis, etc., I would advise a careful examination of the nose. I have just discharged a woman aged twenty-five years, who for years has had attacks of croup, by relieving her of a nasal stenosis and tonsil irritation. I gave her no medicine whatever, although for years previously she had constantly taken some kind of medicine, and never felt safe at night without ipecac in her room. Many cases of supra-orbital and facial neuralgias, conjunctivitis (especially phlyctenular conjunctivitis), keratitis, iritis, and lachrymal trouble are relieved only when a turgescent nasal mucous membrane becomes relieved. A child recently brought to me was threatened with a recurrence of an iritis, which had been treated for months in Spokane and I was able to effect a cure by simple nasal douches.

For reasons before stated, I shall not give details of treatment. In general the surroundings should be carefully considered. I am of the opinion that many colds are only the result of the action of some toxins on the central nervous system, or *vice versa*, and this would indicate early and thorough elimination by bowels, kidneys and skin. A high power of resistance to sudden temperature changes may be cultivated by cold baths, or by warm ones followed by cold sponging.

Clothing and Diet.—In Montana nearly every

one wears too much clothing, and likewise eats too much meat. Though I believe the linen mesh on the market is almost an ideal dressing, yet I am almost convinced from my own personal experience that if other goods can be procured light enough to allow free evaporation the same results will be obtained. Combat extreme cold by an overcoat. Diet must be considered in the individual case. Locally I like salt, a teaspoonful to a pint of warm water, or equal parts salt, soda and borax. Glycethymolin, borolyptol, formalin, etc., have useful places. Oils also have their field. Adrenalin solution will make many patients happy and drive a few from you forever.

The restoration of the nasal chambers to perfect anatomical condition is of the first and greatest importance for effecting a cure. Then the time-honored saying that "catarrh cannot be cured" will be heard no more. Straighten the septum, if it is required. I like the Myles instruments for this in most cases, though the knife, saw, Kyle's saws, Ashe's cutting forceps, etc., are all useful in particular cases. For spurs use the saw, knife or cautery as indicated. Those near the floor may be effectively reached with Pynchon's concave blade saws. For polypus the snare is preferable. Cautery and forceps are useful. Enlarged turbinates are best removed, the lower with saw, scissors, knife and snare. For the middle turbinate I prefer Holmes's scissors and the snare, though the Myles cutting forceps, the Curtis forceps and many others have special indications. For hypertrophied tissue I like cautery puncture along the periosteum, thus saving the normal surface. I consider the electrocautery one of the most useful and most dangerous of all nasal instruments.

One thing I would have you remember in nasal work—the job you underdo may be corrected later, while the one you overdo can never be corrected. If you are not absolutely sure that a portion should be removed, then by all means leave it alone.

MEDICAL PROGRESS.

SURGERY.

Gastrectomy.—The rarity of this operation impresses itself upon one who is doing much abdominal surgery. Very few cases present in which the operation of gastrectomy can be performed, says ALBERT VANDER VEER (Amer. Jour. of Obstet. and Diseases of Wom. and Child., Oct., 1902). This writer reports two such cases, one of which was successful. The first case, a woman forty-two years of age, gave a history of carcinoma of the stomach. The stomach was removed and the esophagus was joined to the duodenum by means of a Murphy button. After the patient had recovered from the anesthetic she gave herself a sudden wrench, and from that time she gradually sank; and 24 hours later died. Autopsy revealed the fact that the Murphy button had pulled out of its moorings and the contents of the gut had escaped into the peritoneal cavity. This was the cause of death. In the second, that of a man fifty-five years old, the stomach was removed and the two cut ends of the gut were sutured together by means

of fine silk. In this case, there was a perfect recovery. This patient was exhibited at the meeting of American Surgical Society, Albany, N. Y., June 4, 1902, and presented the following history: Appetite excellent, bowels in good condition, wound thoroughly healed, is able to eat any kind of food, and increased quantity. Has gained over 30 pounds in weight. In September of this year the patient resumed his trade of blacksmith without noticing any change from his normal condition. This increased nutrition leads the author to believe that the stomach can be removed and the remaining portion of the intestines perform the necessary functions. The Murphy button is not safe, and the two cut ends of the intestines should be closed with silk sutures.

Normal Involution of the Appendix.—This organ normally undergoes an involution process, which is marked by a gradual disappearance of the mucous coat, with obliteration of the lumen of the appendix. These cases, says ROBT. T. MORRIS (Amer. Jour. of Diseases of Wom. and Child., Oct., 1902) have received anatomists' attention and have escaped the notice of the surgeon. It is a class of common cases that go the rounds of the medical profession, seeking the relief which has not very often been given, because the nature of the case was not clearly defined in medical literature. They complained of a sense of discomfort in the region of the appendix, but with no history of acute attacks, and nothing is found on palpation, so that they are put down in the category of intestinal indigestion, due to some cause requiring the analysis of a physician. The author mentions a case of a well-known surgeon, who was convinced that something was wrong with his appendix. For four years there had been an area of localized discomfort in the region of his appendix, with occasional neuralgia of the ilioinguinal and iliohypogastric nerves. There was no actual pain, and there were at first periods of complete relief, but these became shorter and shorter, until finally the discomfort was so persistent, that he sought relief. The patient insisted upon operation and the appendix was removed. The appendix was about three inches long and presented no evidence of infective changes. On longitudinal section, it was observed that nearly all of the distal half of the appendix had a normal involution process with obliteration of the lumen and replacement of the lymphoid and mucous layers by connective tissue. This replacement tissue was practically scar tissue and it probably so crowded the nerve filaments as to be the cause of the discomfort in that region. The symptoms of this disorder belong to middle life though they sometimes become marked as early as the twentieth year. They persist over a series of years and probably disappear in later life when the appendix has become transformed into a string of looser connective tissue. It is to be differentiated from tuberculosis of the appendix, and benign mucous occlusion, or appendix irritation due to torsion or angulation. Hysteria can be recognized by the accompanying neurotic manifestations. Treatment should be symptomatic and operation should not be the procedure of election.

Percussion and Auscultation as a Means of Diagnosis in Fracture.—Although the discovery of the X-rays has facilitated the diagnosis of fracture in a large number of cases, the use of this method necessitates the installation of special apparatus, delicate and easily damaged, which, in addition, is always difficult of application, if not impossible in a large number of cases, especially in a country practice and in the army. Moreover, if one bases his diagnosis upon the classical signs of fracture, namely, crepitus, abnormal mobility, deformity and pain, it is often possible to be absolutely certain of fracture; but, unfortunately, these signs may

be lacking more or less distinctly or else bleeding locally may make a thorough examination undesirable. It is in precisely these cases that J. PLÉSCH (La Sem. Méd., Oct. 8, 1902) has advised, without any new instrument, a good means of locating fracture. If one percusses at the superior epiphysis of the healthy bone and auscultates at the same time at the lower epiphysis, a clear sound is received, whose quality, intensity and loudness depend upon the density and size of the bone in question, and upon the condition of the neighboring tissues. In a given individual in health, percussion upon a given point will give practically the same results. If, however, there is a fracture, even if incomplete, the transmission of this sound is altered, and, according to the condition of the bone at the break, the percussion of the bone itself is accompanied by bruit more or less metallic in quality. Then, in a complete fracture, the sound will be heard only if the fragments are in contact, and will then be more or less a crepitation. As a means of control, this maneuver should always be carried out on the healthy side of the same bone. The author states that this permits easy localization of the fracture, because, except in compound fractures, it is only necessary to slowly approach the point of percussion and the stethoscope bell from the two ends of the bone. As soon as the normal bone percussion note is obtained, the seat of the fracture is reached, because in that case the bell of the stethoscope will be partly over the fracture and partly upon the sound bone that is being percussed. Normally the epiphysis is placed directly under the skin of the bones best adapted for this purpose. If there is inflammation present, the maneuver may be carried out with almost equal satisfaction not by percussing the epiphysis of the diseased bone, but of the neighboring bone. In this case the joints seem to transmit the sounds sufficiently well to admit of comparison between two sites and of diagnosis. This author has verified these assertions upon the cadaver as an exact means of diagnosing fracture, and on bones of the ribs and on the vault of the cranium. He finds it of service also in costal caries and in osteomyelitis of the fibula.

The Repair-process in Cranial Flaps.—Although a great deal has been written on this subject and a wealth of experimental work done, the question of technic after resection of a portion of the skull case is not yet definitely settled. Is it from the bone itself or from its coverings—the dura and pericranium—that the regeneration takes place? A lengthy series of experiments to determine what part each plays and whether firm union can take place in the bone without the help of all three factors, is detailed by NELLO BIAGI (Deut. Zeitsch. f. Chir., Sept., 1902), some of his more important conclusions being as follows: It is clear that if the disk of bone to be removed is allowed to retain its normal periosteal and dural coverings and these are connected to their parent tissues by broad flaps, the disk will, in the great majority of cases live. Slight and limited necrotic zones may develop in such a flap quite independently of the operation trauma, namely where the vessels become thrombosed. Invariably, however, no matter what processes may have led to their development, these areas are replaced by true bone, which takes its origin from old Haversian canals. Although this ossification is not so pronounced in the late as in the early periods, it is always present, is constant and progressive. True horny union between the disk and the walls of the lumen does not take place, even under these most advantageous conditions, for a very long time. The dura and periosteum must, therefore, be considered as all-important factors in cranial osteo-regenes. Of the two, the dura probably plays

the less important part, as the repair may be perfect in cases where it has been totally removed from the bone. So small were the bone repairing processes of the bone that without the aid either of dura or of periosteum the fragment, unable to retain its vitality through osmosis, slowly but surely and entirely absorbed.

Urine from Each Kidney.—The importance of being able to separate and collect the urine from the two kidneys is now fully recognized but the difficulty experienced in using the instruments which have previously been employed has been so great that only those who were especially skilled could hope for satisfactory results. Separated specimens in the male can be obtained only by ureteral catheterism and this requires a bladder with a capacity of at least 50 c.c., which is not bleeding or into which one or the other kidney is not pouring blood too rapidly for the irrigating cystoscope to wash away. F. C. VALENTINE (Med. Rec., Oct. 25, 1902) explains the use of an instrument which has been recently devised by Cathelin of Paris. It is a vesical divisor consisting of a cylindrical tube shaped at one end like a short-beaked silver catheter. The distal extremity has a central orifice and two lateral catheter carriers, each opening protected by a screw-nut to prevent escape of urine, except through the catheters, which perforate the nuts. The central orifice allows the easy propulsion of a shaft whose handle is graduated and to whose vesical extremity is attached a fine steel spring in such a way that, one end being held near the beak of the instrument, the remainder of the spring is forced into the bladder forming a large loop or circle and is maintained in a vertical position. Within this spring loop there is a soft rubber membrane which completes the division between the two sides of the bladder, the size of the loop being regulated according to the capacity of the viscus previously determined. The catheters drain the urine from either side. Very little distress is caused by this instrument, no anesthetic is required, and an inexperienced person can obtain specimens from both kidneys in a few minutes.

Paradoxical Positions in Coxalgia.—A paper upon this subject is presented by M. PHOCAS of Lille, in collaboration with M. BACHMAN. (Le Nord Méd., Oct. 15, 1902). In general, abnormalities of position in coxalgia may be said to follow two types. In the first or initial period, there is flexion alone or with abduction, rotation outward and apparent lengthening. In the second and terminal period, flexion and adduction with inward rotation and apparent shortening. In a series of six cases the authors have seen a deviation from both these types, consisting in adduction with rotation outward and apparent shortening. The significance of this position is discussed by the writers who found through radiography and resection that there were extensive lesions of the cotyloid cavity, which was enlarged and deeply eroded; and that the head of the femur was also greatly eroded, being partly destroyed in three cases, and reduced to a mere sequestrum in one. It is concluded that while this position cannot be considered as pathognomonic of any one variety of lesion of the hip, yet all the cases in which such a position was seen, were characterized by grave and extensive lesions of the hip-joint.

Diagnosis of Cystic Disease of the Mammary Gland.—Errors in the diagnosis of this condition are almost the rule, says P. BÉGOUTIN (Jour. de Méd. de Bordeaux, Oct. 10, 1902). This condition, described by Réclus in 1883, and for that reason sometimes known as Réclus' disease, is believed to be due to dilatation of and subsequent cystic change in the acini of the mammary gland. The author especially emphasizes its differential diagnosis from cancer. Cystic disease is al-

most always bilateral; and the most important diagnostic point is the multiplicity of the nodules, which can best be appreciated by pressing the breast against the thorax with the hand laid flat upon it. Numerous hard, irregular and mobile nodules may thus be felt, which are scattered throughout the gland, and vary from the size of a nut to that of a grain of wheat. While the tumors are hard, they possess a certain elasticity, and this characteristic together with the partial mobility of the skin over them and absence of involvement of the axillary glands and retraction of the nipple, serve as aids to the diagnosis from a typical carcinoma. Further, pressure upon the tumor will sometimes cause a flow of serous fluid from the nipple; the tumor then becoming less tense, or even fluctuating. Intracanalicular carcinoma may simulate to some degree cystic disease. So long as the neoplastic tissue is limited to the acini and infiltration has not taken place, the tumor remains limited, fairly movable and pressure upon it may induce a flow of liquid from the nipple. Palpation will, however, aid diagnosis through the multiplicity of the nodules in cystic disease as even in the rare cases of multiple cancerous nodules their numbers do not equal those of cystic disease. Adenofibroma or chronic mastitis may also enter into the question of diagnosis, but when a decision cannot be reached either by a process of exclusion or from the classic symptoms of any of these conditions, exploratory puncture of the principal tumor, or of several, is to be practised by means of a Pravaz syringe. If cystic disease be present, a viscid, greenish or lemon-colored fluid will be withdrawn, even a drop sufficing for diagnostic purposes.

Hydatid Cysts.—The following conclusions concerning this rare and usually fatal disease are offered by F. Devz (Rev. de Chir., Oct. 10, 1902). The scolex and the proliferating capsules, which are really the specific microscopical germs of the disease, may equally well as the daughter-cysts, which are properly the macroscopical elements, cause new hydatid cysts wherever they may lodge. It is therefore important and a fact proved clinically and experimentally that in operating one must avoid disseminating anything from these cysts over the wound; otherwise a secondary infection from this source alone is almost assured. Experimentally contact of two minutes or $2\frac{1}{2}$ minutes with a solution of 1-1000 bichloride of mercury or 1-200 formalin will destroy the vitality of all these sources of infection. In cases of cyst which have not yet become altered, a preliminary injection of 1-200 solution of formalin or of the liquor of Van Sweiten with a contact of two or three minutes with the contents of the mother-cyst appears to be sufficient to prevent a secondary infection of the wound, even if the mother-cyst is opened and its contents reach the raw surfaces exposed.

Dupuytren's Fracture.—By fracture of Dupuytren it is necessary to understand a bimalleolar fracture of the leg by abduction, that is, a tearing fracture of the internal malleolus across its base or point, or, more rarely, a laceration of the internal lateral ligament, and fracture of the fibula above the inferior tibiofibular ligaments and the diastasis of the anterior tibiofibular articulation. This last lesion may be lacking. It is, therefore, always an articular fracture. The prognosis of this lesion, according to MALLY and RICHON (Revue de Chir., Oct. 10, 1902) is usually grave as to ultimate function. Although good treatment, well carried out up to the point of consolidation of the bones would be, theoretically, sufficient to bring about a cure, it is admitted that during convalescence there are two secondary complications. The first, which is almost constant, but of variable gravity, is an atrophy of the muscles of articular origin, especially those which affect the ankle. At the same time there are various

trophic troubles, cutaneous and vasomotor. The second is a deviation of the foot progressively outward, that is, valgus. The atrophy of the muscles has the character of a reflex atrophy and is in some cases due to the atrophy of motor cells in the anterior horns of the spinal cord. The existence of atrophic troubles in the skin, or vasomotor symptoms and of muscular wasting suggest the propriety of regarding the deviation of the foot as the primary cause in such a way as to alter the structure of the ligaments and normal gait. Thus progressively the arch of the foot is broken down and flatfoot is produced. Spinal lesions of a trophic nature are still unknown in their essence, but those which are responsible for muscular atrophy consist as a rule in a diminution of the number of anterior cells of the motor horn, or their pigment, and effacement of their axis cylinder prolongations. The immediate treatment usually consists in the application of an apparatus which effectually produces complete reduction and maintains it exactly, while it permits ready access to the internal malleolus. In order to fulfil these indications, watchfulness must be the order of the day. If there is great edema of the soft parts, massage and absorbent applications must be used for several days preceding reduction. If the fracture is compound and complicated, the reduction must be preceded by very careful disinfection of the wound. Faulty union in this fracture constitutes a severe infirmity, and always justifies an operation for its correction.

Laparotomy during War.—The treatment of wounds on the battlefield in war and in the field hospitals is to-day and has been for centuries, an unsettled question, so far as wounds of the cavities of the body are concerned. In the late Civil War in this country nearly 90 per cent. of all the wounds of the abdomen were fatal, which probably constitutes 100 per cent. or nearly that of wounds of the abdomen involving damage to any of the hollow viscera. To-day, however, with better facilities, laparotomy in war is a justifiable procedure. VON HIPPEL (Arch. f. klin. Chir., B. 68, H. 3, 1902) sums this question up with the following points. Laparotomy is, even in war-time, a necessary and advisable operation, which is made possible by means of perfected organization. It is directly indicated in small-caliber wounds of the abdomen primarily, that is, during the first 12 hours, for internal bleeding, provided the condition of the patient will stand it; for wounds of the gall-bladder and gall-passages and urinary bladder, and for fracture of the pelvis. In anteroposterior or transverse direction of the wound in the region of the small intestines and transverse colon it is also primarily indicated, even if there are no distinct signs of wounds of the small intestines. In all other directions of the wound, unless there are distinct signs of wounds of the small intestines, it becomes a secondary operation, that is, after the first 12 hours have passed, especially if there are any symptoms whatever of beginning peritonitis. Late appearing or steadily progressing peritonitis, having its origin in an injury at first without symptoms, is also an indication. As an exploratory operation it is justifiable in wounds which penetrate obliquely between the flank and the navel, and in wounds where there is no opening of exit, especially if it is impossible to recognize whether internal organs are damaged or not. This might be called a relative indication. Wounds of the abdomen through artillery projectiles indicate a laparotomy when they are perforating and the condition of the patient offers any hope. The chief indications against the carrying out of a laparotomy are not so much a prepared place or lack of time or impossibility of realizing asepsis as the difficulties of operating well in a limited space and the necessity of a good transporting facility

after the operation. Therefore, laparotomy should be done in a field hospital to which direct transportation may be had. For this reason, therefore, the following necessities must be realized in such a field hospital: it must be as near as possible to the actual fighting line; it must be provided with several ambulances and an oil-stove; a corps of competent surgeons and nurses must be at hand, and facilities must be provided for caring for the wounded after operation until so far convalescent that they may be moved with entire safety.

OBSTETRICS AND GYNECOLOGY.

Pelvic Suppuration.—The study of pelvic suppuration incident to inflammatory processes discloses the fact that the causes are to be found in infection due to invasion of pyogenic bacteria and an important fact is the nearness of the intestinal tract to the uterus and its adnexa and the pelvic peritoneum. A. J. PULS (*Amer. Gynec.*, Sept., 1902). The traumatic influence on diseased tissue is clearly shown in the case of catarrhal appendicitis reported by Rose. A laborer with this condition received a bruise over the abdomen, developed peritonitis and died, although there was no evidence of perforation. Similarly, exposure to cold, or a local injury can inflame healthy tissues. Both the vermiform appendix and the sigmoid flexure of the colon, as well as other parts of the intestinal tract, when once glued to the uterine appendages by peritoneal adhesions, may by their contiguity, under the influence of traumatism, give rise to intrapelvic suppurative inflammation. Inflammatory processes, in either the appendix or right uterine appendage may affect both, and ascend or descend along the connecting ligament either intra- or extraperitoneally. The puerperium offers the most favorable conditions for infections. Lacerations of the cervix or perineum, erosions and ulceration of the parted vaginalis are open doorways for virulent germs. Purulent salpingitis is, as a rule, the sequel of an ascending endometritis. Abscesses of the uterus are formed in the wall of the organ. The pus escapes through the vagina or breaks into the parametrium, or finds an outlet by way of the bladder or rectum. Exudations near the uterus take place in the intercellular tissue within the uterine ligaments. According to its location we designate an anterior exudate precervical, when within the vesico-uterine folds. It is called paravesical when in space of Retzius. The lateral parametral exudates are defined according to their position at the base of the broad ligament or higher up between the lamellæ toward the pelvic brim. Posteriorly the exudate fills the cul-de-sac of Douglas between the sacrouterine ligaments and descends into the recto-vaginal septum. Intercellular accumulations of pus seek first an outlet into an adjacent viscus; next they follow along the sheaths of the nerves and blood vessels which leave the pelvis. Parametral abscesses rarely rupture into the free peritoneal cavity. A precervical abscess burrows into the bladder. Paravesical abscesses point in the inguinal regions. Lateral abscesses situated in the broad ligament fill the iliac fossa and then point at the anterior abdominal wall, near Poupart's ligament. In chronic posterior parametritis the ligaments are shortened and contracted, causing acute anteversion of the uterus and frequently deviations of the cervix uteri. Pelvic hematocele, as the result of rupture of a tubal pregnancy, sooner or later becomes infected and undergoes pus formation unless absorption of the blood occurs. The treatment of pelvic suppuration consists, without exception, in securing effectual drainage. Paravesical and those in the broad ligament, should be incised above Poupart's ligament, analogously to the incision for ligation of the iliac artery (external

branch). Tubal and ovarian abscesses should be drained through the vagina. Hysterectomy is justifiable where there must be complete loss of functional activity for the adnexa. Our one aim should be to avoid abdominal drainage and to substitute vaginal drainage.

Septicemia and the Curette.—Believing that the serious consequences which so frequently follow the treatment of an incomplete miscarriage or abortion, are due largely to traumatism by the curette and the introduction of germs into the unprotected uterine wall, H. PLYMTON (*N. Y. Med. Jour.*, Oct. 11, 1902) recommends a careful avoidance of anything which will tend to interfere with the natural cleansing act which the uterus performs by causing a profuse exudation of serum and blood from its walls. Valuable assistance can, however, be given to the uterus by the use of frequent uterine douches with an alkaline solution at about 110° F. and a strict avoidance of the many antiseptics which coagulate the albumin and blood. At first he usually gently removes all loose fragments from the interior of the uterus by the use of blunt forceps avoiding any traction upon adherent pieces. A gentle flushing is then given of a quart or more of the alkaline solution and this is repeated every two or three hours till the return is free from fragments and there is no odor. Subsequent vaginal douches are all that are necessary as a rule. A tablet of extract of cannabis indica (gr. $\frac{1}{4}$) and ergotine (gr. $\frac{1}{2}$) every hour until the desired effect is produced will contract the uterus and alleviate pain. The bowels should be moved freely by enemata and cathartics.

The Degeneration of Gynecology.—Surgery has been called the opprobrium of medicine; and if we may consider surgery and medicine as separate entities, this dictum is in a sense certainly true, for medicine only involves the aid of surgery when it has acknowledged its own defeat. In the same sense, says W. P. CAER (*Amer. Jour. of Obstet. and Dis. of Wom. and Children*, Oct., 1902), if we separate the two, we must consider pelvic surgery the opprobrium of gynecology; for it is, or should be, only when gynecology fails that pelvic surgery is involved. The gynecologist who becomes a pelvic surgeon degenerates as a gynecologist and acknowledges an inability to cure without resort to the opprobrium of opprobriums. Is this degeneracy the atrophy of a useless art, or is it the result of neglect for the more brilliant and showy methods? It has come about that, except for a few plastic operations on the vagina, gynecologic operations of old have been turned over to the pelvic surgeon. There is much to condemn in the old "tinkering" gynecology, but there was much also that was good and worth preserving and improving; and when our eyes are less dazzled by the brilliancy of operative measures, and we turn to account the new light gained from operative treatment, we will get better results than in the past, when pathology was dark and the benefits of rest, drainage, heat and many other valuable measures unappreciated. Acute inflammations belong to gynecology; and can be successfully treated by rest, proper nursing, proper food and medicines, and by correct local treatment. This systematic treatment will result in a cure in the great majority of cases, and will reduce the inflammation in the remainder of them to a chronic stage. The essayist insists that surgery is not the only hope for salpingitis, ovaritis, metritis, endometritis, and other conditions included in this term. It has long been known that constipation and other intestinal diseases are closely associated with uterine complaints, and that curettage does not benefit these cases. The removal of the ovaries sometimes only aggravates their condition.

The stomach specialist will often cure these cases. Some cases of congenital malformation or lack of development, from their very nature are remediable only by plastic operation: and others, such as, chlorosis and infantile uteri, are as plainly medical cases.

Repeated Ovariectomy.—The necessity for repeated ovariectomy is rare. Of 228 cases of unilateral ovariectomy performed by Spencer Wells, recurrence in the presumably healthy ovary, necessitating a second operation, was noted in six cases. J. A. C. KYNOCHE (Br. Jour. Obstet. and Gyn., Oct., 1902) believes that it is of importance in considering the question of ovarian tumors to exclude those cases where the second tumor had its origin from ovarian tissue left in the pedicle, or from part of the cyst having been left behind at the original incomplete operation. The mortality of the second operation is slightly higher than the first, probably because of greater frequency of adhesions. Olshausen gives the mortality as 12 per cent., while Vellitz states it to be 26 per cent. Pfannenstiel shows that papillomatous growths may be associated with perfectly simple ovarian cysts, causing implantation and metastasis on the peritoneum, with ascites, the latter being permanently cured in many instances on removal of the tumor. On the other hand, of cystic carcinomata of the ovary, he finds one-half papillary in nature, giving rise to true metastases in the glands, liver and other organs. It is therefore in the case of papillary cysts that removal, partial or complete, of the other ovary is of most importance, because it is difficult, if not impossible, during the course of an operation to say with any degree of certainty whether we are dealing with a simple or malignant papillomatous tumor. In women at or about the climacteric it would probably be a safe rule to remove the unaffected ovary in every case. In younger patients we have to consider the relative advantage of leaving the ovary, removing it altogether or partially excising it. By leaving the ovary the absence of distressing symptoms associated with an artificial menopause, and the possibility of a subsequent pregnancy taking place, have to be contrasted with the slight risk which the patient runs of repeated ovariectomy. If our patients should be kept under observation after operation, so that early manifestations of recurrence could be detected, there would not be the same danger in leaving the unaffected ovary. When the ovary shows incipient cystic disease, simple puncture with knife or cautery may be sufficient; in small adenomatous and dermoid cysts, resection has the advantage in younger patients of probably removing the disease and at the same time leaving a sufficient ovarian tissue to permit ovulation and subsequent pregnancy. Mere resection of papillary cysts is not so safe. Pfannenstiel, in writing on this subject, states that in all cases of ovarian tumors which have a tendency to become bilateral—for example, sarcoma, carcinoma and papillomatous tumors and in all forms of tumors in patients over forty-five years of age, the other ovary must be removed at the same time.

Surgery of Retrodisplacements.—Versions and flexions, while differing somewhat in their etiology, may practically be considered together as regards to their surgical treatment. W. D. HAGGARD (Amer. Gyn., Sept. 1902) thinks that the actual and important clinical division is in movable and adherent retrodisplacements. Between these there exists the very wide difference that the latter are complicated with inflammatory lesions of the tubes, ovaries and peritoneum. And indeed, most of the symptoms referred to retrodisplacements, are due to these complications. The element of infection determines the presence or absence of ad-

hesions. A heavy subinvolved uterus associated with a break in the pelvic floor is perhaps the most frequent etiological factor. Emmet has almost invariably cured all of his cases of movable retroversion following injuries sustained in labor by plastic operations. In nulliparous women it is possible to cure a small number by the pessary. Kelly says that there have been devised over 50 different operations for the cure of distortions and malposition of the uterus which are other than plastic. The various procedures should be based upon (a) the cause of the particular displacement; (b) upon a proper estimate of its results, (c) its complications. Whether or not there be adhesions, if the abdomen be opened the uterus may be secured in position either by retrosuspension or intraperitoneal shortening of the round ligaments. When it is not necessary to go into the abdomen the Alexander operation is the one of choice. This latter operation has an important field in uncomplicated cases, in the young, unmarried or nulliparous when the pessary has failed to cure. (1) It saves embarrassment and discomfort of long, tedious, unpleasant and oftentimes unprofitable local and mechanical treatment; (2) it does not in anyway interfere with subsequent pregnancy, the ligaments undergoing evolution and involution with the uterus; (3) it avoids opening the peritoneal cavity; (4) it does not create any peritoneal adhesions and parturition following, it is smooth and undisturbed; (5) it gives anatomic and symptomatic cure in a very large majority of cases. Alexander's operation has been opposed on the ground that the uterus when normally anteverted, lies well anterior to the external abdominal ring through which the round ligament emerges to its attachment. The round ligament is none the less, however, capable of supporting the uterus forward. The ligament is sometimes difficult to find, but it may be found in three ways: (1) Through the external abdominal ring; (2) by puncture through the roof of the inguinal canal (Alquie), or over the site of the inguinal ring (Kellogg); (3) or by laying open the entire canal as practised by Edebohls. Intraperitoneal shortening may be practised either by looping the ligaments after scarification and then thus ligating them in this position or by cutting them off close to the cornua and passing the cut ends through the broad ligaments and making them fast to the posterior aspect of the organ. Vaginal shortening of the ligaments is an operation of German origin. Ventrosuspension is indicated in those cases where abdominal section must be performed in doing conservative operations upon the adnexa. Kelly devised the method having for its object the formation of an additional false peritoneal ligament which suspends the uterus forward and yet, concedes its untrammelled physiologic mobility. Toweler detaches the urachus and suspends the uterus by it.

The Pathogenesis and Treatment of Eclampsia.

The following conclusions as regards the pathogenesis of eclampsia, embodying the latest views concerning the nature of the disease are arrived at by V. V. SNOGANCEV (Russky Vrach, No. 31, 1902). (1) Eclampsia is a disease sui generis with a definite pathological-anatomical and clinical picture peculiar to itself; (2) The theory of its fetal origin lacks confirmation at the present date, and is contradicted in a general way by many of the phenomena of eclampsia. (3) The uremic theory of eclampsia has been recently refuted even more effectually than formerly. (4) Eclampsia is to be logically considered rather as an infection than an intoxication. (5) Literary data as well as clinical investigations of recent date confirm more and more the infectious theory of eclampsia. (6) Eclampsia is com-

paratively of greater frequency in lying-in hospitals than in private practice. As regards treatment great reliance is to be placed upon the old and tried remedies, morphine and chloral hydrate, administered in doses commensurate with the severity of the convulsions, the first day or two after the attack. Morphine acts principally by lowering reflex irritability and chloral hydrate as an antispasmodic. If the convulsions are very frequent we first administer chloroform, before morphine and chloral can exert their effects. Delivery is the next means in causing cessation of an attack. In 50 per cent. of the cases convulsions cease either immediately or after one or two attacks; and the author resorted to it in cases where the operative interference did not seriously threaten the lives of either the mother or the child. This, however, does not exclude resort to Cæsarian section, which is employed only in exceptional cases, as in the extraction of a living child from a dead mother. The introduction of some fluid into the system is another urgent indication as evidenced by the unconscious state of the patient and the sometimes considerable excretion by the skin and even kidneys. A liter of normal salt solution and sometimes a goodly quantity of milk will tend to increase the urinary secretion and strengthen the action of the heart. The proper posture of the patient, cleansing of the mouth and nose, avoidance of unnecessary examinations, the employment of oxygen, strophanthus and digitalis—are all important factors in the treatment of eclampsia, as regards both the mother and the child. These means should at any rate be resorted to preferably, if possible, to Cæsarian section, mutilation of the fetus and other varieties of forcible delivery.

Rupture of Uterus in First Stage of Labor.—In summarizing the interesting points of causation of this accident, during the first stage of labor, E. W. TWEEDY (Br. Jour. Obstet. and Gyn., Oct., 1902) gives the following: (1) The first stage of labor begins when the polarity of the uterus is established; (2) uterine polarity results from an overstretched condition of the nerves which course through the lower uterine segment, and are distributed to the circular muscular fibers of the cervix. The painless uterine contractions and retractions of pregnancy thin out and stretch the segment and thus ultimately induce polarity; (3) the cervix having fully dilated does not necessarily imply a sufficiently open os to permit of the passage of the fetus; (4) the anterior cervical lip is not easily nipped or incarcerated between the pelvis and the descending fetus. The cause is due rather to the retracting posterior cervical lip and the consequent dragging upward of the os, which can not sufficiently dilate to permit the passage of the fetus through it; (5) such an os will almost certainly, in the case of a primipara, rupture in order to permit the commencement of the second stage of labor, i.e., an expansion sufficiently large to permit the passage of the greatest diameter of the presenting portion of the fetus through it; (6) such a laceration cannot be treated by an immediate suture, not alone because of the great edema of the anterior lip, but chiefly for the reason that the posterior lip is taken up, and there is nothing therefore to which to stretch it; (7) a multiparous cervix is not always the weakest part of the uterus. When this is so a uterine rupture occurring as a consequence of a rigid os, will be preceded by more of the usual premonitory symptoms, and the tear will be most likely to involve the vagina.

Premature Labor by Artificial Methods.—From the first of Oct., 1880 to 1900, in 35,062 accouchements, in 93 cases, labor was induced at the Vienna Clinic. Of the various methods employed, R. LABUSQUIÈRE

(Annales de Gyn. et d'Obstet., Sept., 1902) has gone into a minute discussion as to the efficacy and value, the indications and contraindications of the same. Fifty-seven of the cases had some sort of pelvic stenosis. The conclusions of the writer are as follows: Artificial delivery is applicable to multipara when the life of the infant is at stake and the mother refuses either Cæsarian section or symphyseotomy. This sort of a case is relatively often met with in private practice. In primipara it is necessary to place the indications of premature delivery with great circumspection, as the prevailing ideas of natural delivery are at fault. An increase in the size of the child, with pelvic dimensions unfavorable, serve as points of information; but in every case among primipara the employment of premature accouchement should be guardedly undertaken. The consequences for the mothers are, in spite of the brilliant results which certain operators have obtained with Cæsarian section, notably better than those furnished by the latter operation. In consequence, premature delivery by artificial methods for stenosis of certain ends, a legitimate operation in private practice, and it must be taught to the students at the clinics.

Accouchement in Rachitic Pelves.—A very interesting article, bearing especially upon the statistics and prognosis both to the mother and child, is published by J. L. VALENCY (L'Obstétrique, Sept., 1902). In 520 rachitic pelves, spontaneous delivery occurred in 397 and operation was necessary in the 123 remaining cases. In the later group the external conjugate varied from less than 9 cm. to 11 cm. In these cases there were 36 versions, 42 induced labors, 64 forceps cases, 8 by basiotripsy, one symphyseotomy and one rapid delivery. Among the spontaneous deliveries, certain of the women who were multipara had had previous operative deliveries. The prognosis for the mother depends as much upon other factors as upon the anatomical conditions of the genital tract. The general health must be taken into consideration in view of the strain put upon it by the process of delivery. The length of the labor, the frequency of examination, the excessive pain, the more or less hasty rupture of the membranes, the stoppage of the fetal head, more or less prolonged at the plane of the superior or inferior strait and the more or less recent death of the fetus, all add materially to the collapse of the mother. Rupture of the uterus is happily rare. Primary or secondary hemorrhages do not frequently occur. It has been said that contracted pelvis are a factor in the causation of puerperal infection but this is undoubtedly not a cause, but simply a contributing factor. Rupture of the symphysis pubis has been reported in three instances, but the author thinks that the rachitic contraction was not the cause that led to the rupture. In the operative case, the mortality was 3.25 per cent. and for the whole 520 cases a mortality to the mother of 0.76 per cent. The prognosis in general is more unfavorable for the child than the mother. In 13 of the 520 cases, prolapse of the cord occurred, 6.01 per cent. of the spontaneous deliveries gave dead infants. These were 24 of 399 children. Two died because the malformations were such that life was not possible. One had perforation of the esophagus; another perforation of the duodenum; one congenital syphilis; two contracted bronchopneumonia; one had an infection of the umbilicus; and one contracted erysipelas. The 17 others were stillborn.

Exstrophy of the Bladder Complicating Pregnancy and Labor.—An interesting case of this kind, together with a split pelvis, is reported by J. ADAM (Br. Jour. Obstet. and Gyn., Oct., 1902). The patient was a well-nourished young married woman, aged twenty-two. Examination of the abdomen showed the follow-

ing three structures from above downward: (1) An umbilical area of about three inches, covered with a thin parchment-like membrane, yet with no large hernia; (2) a vesical area immediately adjoining the umbilical area above, of about the same diameter, and extending below to a tissue which replaced the symphysis pubis, this area being really a small portion of the bladder-wall; (3) below the vesical area and separating it from the vaginal orifice was a very thin fibrous band uniting the gap between the pubic bones. This gap measured three and three-eighths inches. The lower end of the recti muscles seemed to be attached to the bones and not to the fascia, and converged upward to the middle line above the umbilical area. The vaginal orifice was surrounded by a soft fringe of mucous membrane, and with difficulty admitted two fingers. The os uteri was within an inch of this orifice, the anterior fornix being easily reached in front of the os, but the posterior fornix lying much deeper, say two and a half inches. There was no trace of a clitoris. Previous to conception menstruation had always been easy and regular every four weeks. During the latter three months of pregnancy the patient had to lie in bed owing to edema of the labia minora and threatened prolapse of the uterus. At term the patient went into labor, and after three days of irregular pain gave birth to a healthy female child weighing probably six pounds. The anterior portion of the perineum and the soft fringe about the vaginal orifice were torn, because of the fact that the parts were constantly bathed in the urine infection and sloughing took place. However she responded to treatment and fully recovered. The patient declined an operation for exstrophy.

Acadiacus Anceps.—In all cases of double monstrosity there is, to begin with, one ovum the varieties in form and degree being determined by the extent and situation of the fission of the embryonal Anlage, says KEDARNATH DAS (Br. Jour. Obstet. and Gyn., Oct., 1902.) When the splitting is complete and the two portions of the embryo go on to perfect development, there are born the so-called homologous or uniovular twins. Up to the twelfth day the two develop evenly. At that time the allantois buds out from the hind gut of each individual, and its vessels reach the placental portion of the chorion. According to the degree of the development of the allantois and placenta of the second embryo, one gets several varieties in acadiac fetuses. (1) A. anceps characterized by non-development of the face and anterior part of the body. This species is rare. (2) A. acephalus, which is the most common species; head wanting or rudimentary. Intestines and abdominal organs rudimentary and merest trace of the organs above the diaphragm. (3) A. amorphus. Least developed. Little more than a lump of connective tissue covered with edematous skin. (4) A. acarnus. Rarest. Head alone present, but never fully developed. The author has collected 45 cases from the literature. Acadiacs are said to be rarely born in first labors (Geoffroy St. Hilaire) but five of these 45 occurred in primiparæ. In six cases gestation went on to full term. The perfect twin is said to be born first. The sexes of the twins are said to be identical. Hydramnion is usually present. The theory that these monstrosities are due to maternal impressions, is untenable. Almost all varieties of monstrosities have been produced experimentally upon the eggs of birds and upon lower animals by the action of physical forces external to the embryo. Amniotic bands or adhesions frequently arrest development, causing anomalies. Tissue of the embryo is possible from mechanical force. A. Keith suggests that inquiry into the condition of the mother during the weeks follow-

ing conception might throw some light upon the cause.

Secondary Puerperal Hemorrhages.—From the small amount of space allotted to this subject in textbooks on obstetrics, it must be regarded as a rare occurrence; such is not the case, however, and too much stress can not be laid upon the importance of the fact, says L. W. ATLEE (Amer. Jour. of Dis. of Wom. and Child., Oct., 1902.) There are certain hemorrhages which can not be properly called postpartum and are not due to inversion of the uterus or to lesions of the genital tract. Parvin divides the causes of these hemorrhages into: (1) Alteration of the blood, albuminuria, purpura, malaria; (2) psychic causes; (3) direct causes belonging immediately to the uterus may be included under two general classes—those which prevent uterine retraction, and those which produce uterine congestion. Secondary uterine inertia, uterine fibroids, and probably uterine adhesions may be included in the first. The author is inclined to believe that the hemorrhage would manifest itself as a primary than a secondary bleeding, and the serious loss of blood of this latter nature will most frequently be due to the presence in the uterus of clots, placental remains or that unusual but possible cause, a placenta succenturiata. Bleeding has been seen in cases where uterine involution has been retarded owing to mild septic endometritis, when the patient begins to walk about and remain erect for any length of time; but it is not probable that the loss of blood approaches seriousness. Should a clot occur in the uterus after delivery, it is best to remove it, as it is liable to produce bleeding. Fibrinous polypi of placental nature have been known to cause serious and even fatal hemorrhage in the puerperal condition. Among the unusual causes may be mentioned the presence of a rapidly growing ovarian cyst crowding the uterus upwards. In the same class such causes as coprostasis, distention of the bladder, coughing, aneurism of the uterine arteries, and thrombosis of the cervix are referred to by Parvin. The treatment of secondary puerperal hemorrhage must be directed to the removal of the cause; its prevention is a part of the art of midwifery. Attention should be directed to the uterus, particularly to its interior, which should be explored by the finger, as no instrument can take its place for this purpose. If the cause cannot be found in the uterus the blood should be examined for such conditions as purpura or albuminuria, etc. No matter what the cause of hemorrhage, the after-treatment should be directed to maintaining the uterus firmly contracted, and this is best accomplished by the use of a reliable preparation of ergot. Other procedures are to be tried should this fail.

Hydorrhea Gravidarum.—A sudden discharge of watery fluid from the vagina during pregnancy naturally suggests the commencement of labor, and, it is of practical importance in a given case to determine the source of the flow. W. SINCLAIR BOWEN (Am. Jour. of Obstet. and Diseases of Wom. and Child., Oct., 1902) points out that the fluid may not have come from the amniotic sac but from some portion of the decidua due to the fact that there is an existing "deciduitis." Deciduitis is a characteristic endometritis modified by the changes in the uterine mucosa peculiar to pregnancy. The disease may be acute or chronic. The acute form may be divided into: (1) The infectious or exanthematous; (2) the hemorrhagic, and (3) purulent. Chronic deciduitis is a much more common complication of pregnancy and is a predisposing cause in a majority of earlier abortions. There are four varieties of the chronic form differing in clinical history, severity, and in the constituent element of tissue involved: (1) The diffuse hyperplastic; (2) the polypoid; (3) the cystic, and

(4) the chronic catarrhal. There is an uncertainty as to the exact etiology and pathology of hydrorrhea gravidarum. The exact source of the fluid is as uncertain as its pathology, and it is more than likely that all the constituent elements of the decidua contribute to the formation of the fluid. The discharge may take place suddenly without any warning, or there may be some discomfort due to uterine contractions. The fluid is clear, thin or pale yellow, containing albumin. The flow occurs several or more times. The os is closed. In rupture of the amniotic sac the occurrence is usually at the end of the pregnancy and immediately precedes delivery. Labor pains have usually been going on for some time. The discharge is but once. The liquor amnii contains but a trace of albumin, but an abundance of urea.

MEDICINE.

Castor Oil in Typhoid.—In order to prevent so far as possible the absorption of toxins from the intestinal tract, in cases of typhoid fever, attempts have been made by the use of purgatives and antiseptics to get rid of fermentation and favorable culture media. Most authorities, however, have now concluded that antiseptics cannot be given in strong enough doses to be of much value, and active purgation not only causes considerable drain upon the system but increases the danger of hemorrhage and perforation. C. C. Bass (St. Louis Med. Rev., Nov. 25, 1902) during the past season has employed castor oil in a wide experience in order to prevent the accumulation of fermenting material and to act as an emollient to the mucous membrane of the intestine. He has found that the best results are obtained when a moderate dose is given every 12 hours in order that one or two good movements may be had daily. In this way the characteristic odor of typhoid stools is entirely abolished, showing that a marked change has occurred in the intestinal contents. Furthermore, meteorism is seldom an important symptom when this line of treatment is adopted. The drug does not cause violent peristalsis and does not have a depleting effect upon the system.

Early Stages of Inebriety.—It is seldom appreciated that inebriety is a chronic condition which follows a progressive line of dissolution from a certain origin and development down to chronicity and death. The earlier symptoms are seldom recognized or are attributed to various functional or organic weaknesses and the true nature of the disease is usually understood only when the victim has gone far on the road to destruction. T. D. CROTHERS (Med. Rec., Oct. 25, 1902) points out that heredity is the largest and most prominent factor in the causation—an heredity that dates back to inebriate, insane, idiotic, epileptic or consumptive parents. He divides the symptoms into two groups, the free-alcoholic and the post-alcoholic stages. During these stages a number of prominent symptoms appear and increase up to a certain point, where inebriety is recognized and then they change and are lost in other and more distinct signs of progressive degeneration. Thus a child at puberty, or later at full manhood, will develop an unstable brain and nerve organism easily exhausted, associated with a capricious appetite for food and drinks. This will continue with varied and complex neurasthenic states till inebriety manifests itself unmistakably. These symptoms of brain instability and food delusions may appear in previously healthy men, following illness, injury or mental shock. Thus the more accurately the early history of inebriates is traced the clearer the evidence of a progressive order of symptoms appears before spirits are used. Another class consists of those who have been profoundly poisoned by alcohol, then abstained for an indefinite time

and finally become inebriates. Many temperance workers, sensational preachers, lawyers and literary men are found in this group. The incipient stage may be briefly noted as one in which the higher brain centers gradually lose the power of performing their higher and more complex functions. States of neurasthenia with food delusions produce exhaustion which opium and alcohol relieve. The ultimate result is easily seen. If these earlier states could be recognized and treated properly, no doubt much of the subsequent misery could be avoided. The mistake is frequently made of sending the boy to sea or to the army or to travel where his eccentricities are ridiculed and his degradation hastened. The recognition and study of these earlier stages will open up a field of prevention and cure that will undoubtedly attract a great deal of attention in the future.

Merycism.—After an extended review of the literature of this subject, L. FERRANNINI (Rif. Med., Oct. 11, 1902) reports a case of rumination in a young man—dating from early childhood which seems to bear out the widely-accepted belief in the origin of the affection in motor gastro-neurosis. A most interesting account of the mechanism of the process, as seen with the Röntgen rays, is presented. In order to provoke the phenomenon, a meal of eggs, bread and water was given; and a few minutes after ingestion of the food, the patient was seen to inspire deeply, the lower part of the thorax expanding, the walls of the abdomen protruding, especially in the epigastric region, while the head was extended; then suddenly the abdomen and lower part of the thorax were retracted, the trunk slightly flexed, the head bent toward the sternum and thrust forward; the bolus of food then appearing in the mouth. By means of the Röntgen rays, this rapid succession of phenomena was seen to be accompanied by dilatation of the lungs, especially in their lower part, and violent contraction of the gastric walls and diaphragm. Upon auscultation of the thorax during the ascent of the food through the esophagus a gurgling murmur was heard when the bolus contained much liquid and a soft flowing sound when more dry. The reaction of the food thus returned to the mouth was neutral save in the last portions, when there was a faintly-acid reaction, this being due neither to free hydrochloric nor organic acids. The digestive, motor and absorptive powers of the stomach were found to be normal, as shown by the classical tests. The neuro-pathic nature of the affection was well illustrated by the fact that the patient, impressed with the elaborate details of successive examinations, declared himself much improved, though no treatment had yet been administered. An attempt was made to control the motor excitability of the stomach by administration of neutral sulphate of atropine in one-half to one mgrm. doses; but unfortunately, the patient failed to return after this treatment, and his subsequent history is unknown.

Musical Heart-Murmurs.—An analysis of two cases exhibiting musical heart-murmurs is given by M. DE VIVO (Rif. Med., Oct. 4, 1902) and from a study of such murmurs in general, the following conclusions are drawn: The causes of musical murmurs are various, such as vibrating filaments upon the heart's internal surface; thickening and contraction of the tendinous cords of the mitral valve; pericardial filaments; calcareous and fibrinous deposits causing rhythmical decrease in the opening of the vascular lumen; diffuse vascular atheroma; and finally, a calcareous deposit in the lumen of the aorta, as in the first case reported, and elongation of the anterior mitral valve by organized inflammatory deposit, as in the second case. The mechanism of musical heart-murmurs may depend upon the vibration of filaments, tendinous cords or valvular excrescences; or

again, upon the breaking up of the blood-current by calcareous or fibrinous concretions within the lumen of the aorta.

Nephritis in Smallpox.—Considering the high fever, the serious impairment of skin function and the septic absorption from numerous pustules that accompany severe cases of smallpox, it would be reasonable to suppose that the kidneys would be in danger of injury. Most writers of text-books dismiss the subject of renal complications in a few sentences, acknowledging however the presence of an albuminuria or a true nephritis in certain cases. A contribution to this subject has been made by W. M. WELCH and J. F. SCHAMBERG (Phil. Med. Jour., Nov. 1, 1902) who have based their observations upon 1,088 urinary examinations in 128 cases of smallpox. They found that albuminuria is more common in this disease than is ordinarily believed, having been present in 65 per cent. of the cases examined. The fact that tube casts were found in 45 per cent. of the cases warrants the assertion that the albuminuria in most instances is the expression of a structural change in the kidneys. Cases of discreet variola and well-marked varioloid have been accompanied by nephritis almost as often as cases with more profuse eruptions. This would suggest that the kidney involvement is the result of the influence of the smallpox poison. The clinical symptoms are as a rule mild, and not as obvious as those of a scarlatinal nephritis. During convalescence a slight albuminuria was noted in 75 per cent. of the cases. The authors call attention to the probability that the damage done to the kidneys, if unrecognized and uncared for, may eventually cause a chronic Bright's disease. They believe therefore that the urine of convalescents from smallpox should be carefully and repeatedly examined and the diet and mode of life regulated accordingly.

Kahler's Disease.—An interesting case of Kahler's disease or multiple myelomata of the bone is published by G. JOCHMANN and O. SCHUMM (Zeitsch. f. klin. Med., Vol. 46, Nos. 5 and 6). The diffuse neoplasm had destroyed the spongiosa of the vertebrae, ribs, sternum, pelvic bones, humerus, femur and several bones of the foot and had converted the cortical portions into a thin paper-like shell. The term myeloma is generally applied to those tumors which are exclusively located in the bone-marrow, resemble its structure and do not form metastases in the internal organs. They must be distinguished from lymphata and from myelosarcomata. The clinical symptoms of the case were pains in the hips with an inability to walk, tumefaction of the sternum, with later hyphosis of the dorsal vertebrae and spontaneous fracture of the neck of the femur. The blood showed anemia and the urine contained as much as 0.35 per cent. Bence-Jones bodies during the last weeks of the illness. The entire duration of the disease was 1½ years. The most interesting symptom of the disease is the presence of Bence-Jones bodies, a heteroalbumose, in the urine. Though not found in true osteomalacia, they may occur rarely in endotheioma, chondrosarcomata and round-cell sarcomata of the bone-marrow and occasionally in leukemia. The urine of the quoted case was turbid, and acid in reaction, with a specific gravity of 1.020. The following reactions were obtained: (1) On boiling, a flocculent precipitate formed, which increased in amount on cooling; (2) with nitric acid a distinct ring formed; (3) acetic acid and ferrocyanide of potassium gave a precipitate; (4) if nitric acid was added after boiling the precipitate did not disappear; (5) the biuret reaction was positive; (6) boiling with an alkaline lead solution gave a blood color; (7) a white precipitate formed with Millon's reagent. The reactions for albumose were readily obtained with that part of the precipitate which formed at 53° C. This

same albumose could be found in the blood after death.

Hematology of Gastric Cancer.—An elaborate study of blood changes in cancer of the stomach is reported by MOTISSER and TOLOR (Revue de Méd., Oct. 10, 1902). Four cases are cited as exceptions to the rule which declares that a notable diminution of the number of red blood cells occurs in this condition. One of these cases was five years advanced; the general health had remained fairly good. The others were cases only under observation for a few months; no marked cachexia had yet developed. As the general condition of these patients grew worse the red blood cells diminished in number, one instance only is mentioned as an exception to this rule. The hemoglobin index is commonly diminished in cancer of the stomach and the authors regard this as an excellent diagnostic sign in doubtful cases; where it is wanting, its absence may be attributed to the slow advance of the lesion. Of course it may be affected in any case by a sudden perturbation in the number of erythrocytes. Leucocytosis is apparently a late sign; it appears only in the period of marked cachexia, unless suddenly produced by inflammatory complications. There has been some difference of opinion concerning the value for diagnosis of the leucocyte formula in cancer. Hayem reported a relative and at times an absolute increase of both varieties of mononuclear leucocytes, diminution or absence of eosinophiles. Hartmann likewise insists that mononuclear leucocytes is a capital differential sign. Tuffer and Mileau report an increase of mononuclear cells as characteristic of the early stages of epithelioma, but found polynuclear leucocytosis in later stages. Marcel Labbé bases the diagnosis of cancer on polynuclear leucocytosis in the absence of fever. The present authors see no way out of this difficulty as numerous blood counts gave the most divergent and contradictory results.

A New Apparatus for Counting Leucocytes.—The utility of ascertaining the number of leucocytes in a patient's blood is now so great that in the opinion of R. BRAUER (Berl. klin. Woch., Oct. 13, 1902) the time has arrived for the adoption of new apparatus for this purpose which will give more accurate and reliable results than are obtained by the Thoma-Zeiss apparatus. The latter is well adapted for the counting of red blood cells, but Breuer regards it as either unreliable or time-wasting in ordinary work with leucocytes; either the entire divided surface is counted a single time, giving uncertain results, or the chamber is repeatedly filled and a series of counts are made, which demand more time than generally can be spared. A larger counting-chamber, divided so as to be convenient for leucocyte counting only, is the proposed solution. Zappert, Elzholz and Türk have already introduced instruments which embody this reform. Breuer finds these instruments unreliable and difficult to manage in the hands of all but the most skilled hematologists. His own new apparatus employs a counting-surface of nine square millimeters. There are four vertical lines, placed one mm. apart, and twelve major and minor horizontal lines, the result being a series of oblong spaces one-quarter mm. high and 1 mm. wide. In an ordinary dilution of 1-10 Breuer's practice is to count five square mm., giving 400 leucocytes in a normal specimen containing 8,000 such cells per cubic mm. It will be remembered that in the Thoma-Zeiss apparatus in every-day use only a single square mm. is counted at one time. Breuer claims to be able to make reliable differential leucocyte counts without employing a dried specimen, but wisely restricts his claim to the differentiations of polymorphonuclear from mononuclear cells, and admits the value of a dried specimen for the identification of mast-cells and myelocytes.

THERAPEUTICS.

Value of Inhalations of Oxygen.—Inhalations of oxygen exert a very favorable effect and can even be life-saving in the dyspnea of heart and lung disease. E. ROCOVIN (*Zeitsch. f. klin. Med.*, Vol. 46, Nos. 5 and 6) says that nobody who has seen the improvement in the subjective symptoms will doubt the value of oxygen. Besides a good influence on pulse and respiration, there is often an increase in the amount of urine, which is of great value in diseases of the heart. The efficiency of the inhalations can be considerably increased by artificial respiration especially in case of morphine poisoning. Good effects were also seen in eclampsia and carbon monoxide intoxication. The poor results obtained by some authors is due not so much to the oxygen as to its faulty method of application. Then again, not all forms of heart or lung disease are suitable and the case must be chosen. The effects of oxygen were also studied on animals in poisoning with various drugs. With strychnine, the convulsions developed later and were less severe and of shorter duration, and in some cases were absent altogether. Death occurred much later where the animals were kept in pure oxygen and the same was seen also when they were poisoned with morphine. Experiments with chloroform showed that the stage of excitement was prolonged and that the narcotic as well as the fatal dose was considerably larger. Where illuminating gas was employed, only one animal out of 12 died in oxygen, where the same dose proved fatal for 11 in air and the symptoms came on much later, generally without convulsions. Even with non-fatal doses the difference was very apparent. Favorable results were also obtained where the intoxication resulted from the vapors of aniline.

Strength of Digitalis in Different Seasons.—From a number of cases collected from literature, D. FOCKE (*Zeitsch. f. klin. Med.*, Vol. 46, Nos. 5 and 6) concludes that intoxications with digitalis are more frequent during the second half of the year and that the toxic dose increases in size from autumn up to June, when fresh leaves reach the market. He also found that to produce the same therapeutic effect in hydrops, twice as much of the drug was necessary in the early part of the year, than in the late, and the same held true in endocarditis and acute febrile disease. In patients who took digitalis for many months, it was seen that the usual dose often failed to remove the symptoms in the spring. There is no question that the activity of digitalis depends in great measure upon the season, for the fresh leaves during August are four times as strong as the old ones.

Action of Salicylate on the Kidneys.—In none of the 33 cases examined by H. LUTHY (*Deutsch. Arch. f. klin. Med.*, Vol. 74, Nos. 1 and 2) where preparations of salicylic acid were administered were pathological structures missed in the urine. Frequently albumin was present, and almost constantly larger numbers of epithelial cells with red and white blood cells, casts of different kind and cylindroids. After the drug had been stopped for two to three weeks, the analysis of the urine again gave normal conditions. It thus follows that the usual doses of salicylates cause considerable irritation of the kidneys. Since different preparations were used the effects could not have been due to accidental impurities. An almost constant phenomenon was the appearance of calcium oxalate crystals in the sediment. Frequently a large number of casts was present without albumin and hyaline and granular forms were most common. Evidences of bladder-irritation were also seen. The experimental administration of salicylates to animals always caused a nephritis and the kidneys enabled the author to study the formation of casts.

It appears that they are derived from epithelial cells which swell up and then unite. The renal origin of cylindroids was also proven.

Use of Iodothyryl.—Iodothyryl, the active principle of the thyroid gland is sufficiently long in commerce to permit an exact estimation of its value. E. ROOS (*Münch. med. Woch.*, Sept. 30, 1902) uses it most frequently in daily doses of one gram in parenchymatous goiter, but also with good result in larger doses in the more fibrous growths, though the cystic forms do not improve much. Most patients were well satisfied with the cosmetic results though palpable remnants almost always remained. Inflammatory and malignant thyroid disease were not treated internally. Cretinism was influenced favorably except where the patients were adults. Obesity was improved with moderate doses and even though the actual weight did not always diminish, many of the subjective symptoms vanished. An interesting observation was that iron caused a quicker improvement of anemia when given with iodothyryl. Great success has been reported in the treatment of arteriosclerosis, but the author's cases were not benefited, perhaps because the process was too advanced or the treatment not long enough. Psoriasis yielded more readily to external treatment after a course of iodothyryl.

Treatment of Typhoid Fever with Lactophenin in 450 Cases.—Lack of water during a typhoid epidemic forced the hospital authorities at Gelsenhausen to the exclusive use of an antipyretic drug in combating the prolonged fever and marked nervous alterations of this disease. Lactophenin was chosen in preference to phenacetin, salipyrin, quinine, *et al.* In one series of 25 cases the fever had reached the continued stage and in the entire group maintained about the same level. At midday (after which time the temperature from physiological causes ordinarily rises) each patient received 1 gram of lactophenin. In nearly every case the temperature began to fall in about an hour, and continued to decline for several hours, only regaining the original level after seven hours. The average fall was 2° to 2.5° C. Pulse and respiration remained fully as satisfactory as before the administration of the drug. The method generally followed throughout the epidemic, as described by C. VON SCHULER (*Berl. klin. Woch.*, Oct. 13, 1902), was to administer three doses of lactophenin, respectively at 8 A. M., at 3 P. M. and again at 8 P. M. For adults each dose was one gram, for children 0.5 gram. The smaller dose was tried for adults but failed to influence the fever in any degree. Aside from the favorable influence upon temperature, the marked sedative effect of lactophenin was noticeable. Marked nervous excitation was present in 64 cases; without exception lactophenin quieted the central nervous system, promptly modifying symptoms of delirium after the first dose and producing a noteworthy improvement in mental tone within 24 hours. On the other hand the doses given (ordinarily one gram) were of no avail in the treatment of the peripheral nervous disturbances which so often cause pain in the extremities. In no single instance was any untoward result observed from the use of lactophenin. In view of the facts that the usual proportion of complications occurred in his large series of cases, and that the mortality was 9 1/2 per cent., Von Schuler sees no ground for the claim of any specific working of lactophenin in typhoid fever. The chief inference to be drawn from this series of cases is that where the water-treatment is impossible, the therapist will do well to fall back upon lactophenin as a drug which successfully combats important symptoms and which can be given for long periods without producing untoward consequences.

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SATURDAY, NOVEMBER 22, 1902.

TENEMENT HOUSE DOGS AND THE PUBLIC HEALTH.

THE chairman of the Aldermanic Committee on Public Health proposes to exclude dogs from apartments, flats and tenements and has introduced an ordinance to that effect. Ordinances more potent for good and for evil have been laid before the City Fathers from time to time, but rarely has any regulation touching the public health and comfort aroused such lively interest or so promptly and effectually divided the community into two hostile camps.

Tenement and flat-house dogs are no strangers to notoriety. It is said that every dog has his day, but these dogs have suffered or enjoyed public attention for many a day, and their virtues and vices are coming to be pretty well known. The proposed ordinance which is just now in the public eye emanates from a health committee of laymen, but is it not reasonable to suppose that, if there were need of such legislation, our watchful Board of Health would have discovered the need long ago?

There are persons who like dogs and persons who don't. We might even say, now that children have gone out of fashion among people of moderate means who live in flats, that there are people who need dogs. Yet, if this dog question

is to be settled by a balancing of sentimentalities and personal needs it will call for a quality of human judgment which probably does not exist. Examined on such a basis the question presents interminable and bewildering complexities. Are lonesome women to be deprived of their pets? Is the Society for the Prevention of Cruelty to Animals to have its revenues cut off? Is pretty, clean, faithful Fido to be banished from his happy home because Prince has been untidy, noisy and ferocious? The Society of the Flat-House Thieves begs for the enactment of the proposed ordinance on the ground that it will encourage a struggling industry, but the dogs themselves declare that an Ounce of prevention is better than a Pound of cure. The one conspicuous failure in the political life of the lamented Col. Waring was his futile attempt to suppress the flat-house dog, and shall lesser men succeed where he failed? It is obvious that individual experiences and fancies should not be permitted to settle this overworked question. The thing to be decided is whether dogs in tenements and flats are or are not a menace to life or health. If they are, then away with them! If not, let us have peace, and the dog his bone.

From the medical standpoint the exclusion of dogs from houses occupied by more than one family is not necessary. For in such dogs rabies is at least a rarity, and the cases of parasitic diseases which can be traced to them are a negligible quantity. A more serious matter is the transmission of contagious diseases by dogs living in close contact with several families. Even if the dog is taken care of when the case is definitely diagnosed and isolated, the possibility remains that he has already acted as intermediary in carrying contagion to his neighbors. But it is precisely in this matter that we must trust the wide experience of the Department of Health. The latter alone is competent to say whether or not the tenement house dog is really a menace to public health and whether the keeping of such dogs should be universally forbidden.

THE IMPLANTATION OF SILVER FILIGREE FOR THE CLOSURE OF LARGE HERNIAL APERTURES.

DR. WILLY MEYER, in the *Annals of Surgery*, November, 1902, advocates the use of a ready-made netting of silver wire to close large hernial defects which cannot satisfactorily be treated by some method of autoplasty. Various continental authors have described the application of barriers of this sort improvised at the time of operation

by approximating the borders to the hernial opening with a series of interrupted wire sutures. A needle with a long piece of much finer wire is then plied transversely and obliquely across these sutures until a regular fine network is formed. Such a network should be made at least three times the size of the hernial aperture.

This method was published by Witzel in 1890, and at almost the same time Göpel made public his results in the use of *ready-made* silver wire netting. For this the following advantages were claimed: (1) The tissues bordering the hernial aperture are less exposed to injury and constriction; (2) the time required for the operation is reduced; (3) the meshes of the ready-made wire pad are of equal and regular dimensions; a diastasis, even of small size, is less often met with; (4) the amount of silver wire left within the wound is reduced to a minimum.

In cases of umbilical and ventral hernia the shape of the net is round, oval, or quadrangular, with blunt corners; it is sutured upon the aponeurosis of the abdominal muscles bordering the aperture. In inguinal hernia the net has the shape of an acute-angled triangle with the base turned toward the median line, where a small excision has been made for the spermatic cord. It rests on the internal oblique or transversalis muscle, while its sides are attached to Poupart's ligament below and the muscles above. In three cases in which the author employed nettings of this description the results were in every way most gratifying. The patients were corpulent individuals and the conditions present made the chances of success with one of the ordinary operations very small. One patient has since died of an independent condition while the others have for periods of eighteen and eight months respectively, which have elapsed since the operation, remained cured and had no serious inconvenience from the presence of the foreign body.

ANIMAL PARASITES AND EOSINOPHILIA.

WHEN methods of diagnostic examination that are distinctly technical and require time and practice for their application are first suggested there is sure to be serious objection on the part of those who think that the armamentarium of the physician is already almost too cumbersome. If new tests prove clinically helpful, however, it is not long before they are sure to be extensively adopted. At times it may prove that new uses for diagnostic methods develop while their orig-

inal purpose may prove abortive. The result presents a striking answer to the ever-recurring question asked of science: What use are such observations? Facts are always precious and inevitably find a practical application in the field of science, although at first they may have seemed of only purely theoretical interest.

An appropriate illustration of the practical value of what at first seemed of scarcely more than speculative interest is the use of the differential count of the eosinophile cells as a pathognomonic test in obscure conditions due to animal parasites whose presence sometimes escapes detection. The discovery at Johns Hopkins some years ago of the fact that trichinosis is always characterized by a marked increase in the proportionate number of these white cells in the blood which exhibit the red granulations after the triple stain and had been consequently called eosinophiles was a source of no little gratification. Ehrlich's excellent original work on these cells had proved of great academic interest but scarcely more. Here was the eventual practical application. Trichinosis, in the absence of suspicions as to the kind of disease present, formed an extremely difficult diagnostic problem liable to be unsolved until after the fatal termination, and even if suspicions of its nature were aroused presenting a very trying puzzle to elucidate successfully. The differential blood count is however easy to make and eosinophilia will not only prove suggestive but may be absolutely confirmatory of suspicions. It seems clear that in the past mild cases of trichinosis have been diagnosed as muscular rheumatism and treated as such without any suspicion of the real cause of the illness. A simple examination of the blood will now do away with the possibility of such an error and perhaps prove life-saving by indicating for the patient himself or for friends who might partake of the same meat the source of the infection.

The *Filaria sanguinis hominis* is another parasite whose presence in the system is indicated by the occurrence of a distinct eosinophilia that is very rarely absent. Recent observations made by United States Army surgeons in the Philippines show that a careful differential blood examination with special attention to the number of the eosinophiles present constitutes the readiest way of reaching a definite conclusion in cases suspected of filariasis. This special blood indication seems to occur almost invariably and indifferently with the diurnal and nocturnal forms of the parasite.

Of late years the *Anchylostoma duodenale* has

attracted ever-increasing attention. At first discovered as the cause of the anemia in tunnel workers in the St. Gothard tunnel and supposed at most to be endemic to the northern part of Italy from which the original cases observed came, the disease has proved to be very widespread. It was found among the workers in brick yards along the Lower Rhine in Germany and among outdoor workers in other parts of Europe where the drinking water of the workmen was liable to be infected by their excretions. It has been discovered since the American occupation of Porto Rico to be endemic on that island and the observations of the United States Army surgeons on the disease have solved the hitherto unsolvable problem of Porto Rico anemia and have proved the basis for the successful therapy of the disease. Anchylostomiasis, or Uncinariasis as it is called has also been found in the Philippines, and there are indications that many of the anemias of our Southern States are due to this parasite. The pathognomonic sign is the discovery of the eggs of the parasite in the stools but eosinophilia often occurs to a marked degree early in the cases and may prove a helpful adjunct to the diagnosis of the condition before the anemia has become so severe as to be dangerous.

Other intestinal parasites, especially the larger round worms and the tapeworms are apt to cause a blood disturbance characterized in its early stages at least by eosinophilia. This is said to be true of the *Bothriocephalus latus*, the short fish tapeworm so common on the shores of Italian or Swiss lakes or the Baltic Sea, where the custom of eating uncooked fish obtains. The disease is seen occasionally in this country because the parasite is extremely tenacious of life and has been known to survive for many years.

It would seem then that the staining of blood for exact counting of the comparative number of eosinophiles present may prove a helpful diagnostic sign in all cases of animal parasites, whether the habitat is the tissues, as for trichina, or the blood vessels, as for the filaria, or the intestines, as for the true vermes. It is not unlikely that early stages of *Cysticercus cellulosae* infection may show a like reaction. The subject is well worthy of further study. The time appears to be at hand when the anxious mother's frequent question as to whether her young hopeful may not possibly have worms can be answered by an immediate examination of the blood without the delay and uncertainty of prolonged observation of the stools.

THE STUDY OF EPILEPSY.

A SYSTEMATIC and well-organized attempt to study epilepsy in its broadest aspects is a new innovation in medicine. Efforts of this sort in the past have been delegated to societies and sections for nervous disorders in general. With increasing specialization new societies are formed to consider special disorders. Hence we have the National Association for the Study of Epilepsy and the Care and Treatment of Epileptics, which met for its second annual meeting at the New York Academy of Medicine on Nov. 5. Its members are to be congratulated upon the interest of the papers and the large and widely representative audience present.

The program was arranged so that the practical questions concerning the disease were well brought out. It was an epitome of our present knowledge of the disease and a résumé of many of the more important advances in the study of epilepsy. The presidential address by Dr. Frederick Peterson was a carefully detailed account of the origin and progress of the modern movement in establishing special provisions for the epileptic class in Europe and in America. Special stress was laid upon the urgent necessity for endowments for research laboratories in order to discover the cause and cure of the disease.

The papers were so distributed that the etiology and pathology of the disease were considered in the afternoon session, while the evening was given over to reports and papers on the social and legal aspects of the disease and the progress made in establishing special provisions for the epileptic class.

The afternoon papers on the causes of the disease were by Doctors A. Jacobi and Roswell Park, and those on pathology by Doctors A. Meyer, L. Pierce Clark and Thomas P. Prout, while those of the evening were by Doctors E. J. Spratling, W. N. Bullard and William P. Spratling.

The society invites membership from all who are interested in any phase of the subject. Dr. Wharton Sinkler of Philadelphia was elected president for the ensuing year.

ECHOES AND NEWS.

NEW YORK.

To Abolish Coroners.—At a meeting of the New York State Medical Association of New York county last week in the New York Academy of Medicine it was voted to appoint a committee to investigate and report upon the advisability of abolishing the Board of Coron-

ers in this city. The committee is to confer with the Committee on Legislation of the New York State Association and other committees representing medical societies so that the general opinion of the medical profession may be reached. The medical associations have interested themselves in the abolition of the office of coroner for several years. The office is now no longer a constitutional one and can be abolished by the legislature. The doctors favor the splitting up of the coroner's power between the Health Board, in so far as it relates to pathological matters, and to the magistrates in other affairs.

Victory for Tarrant Drug Company.—The Tarrant Drug Company has been successful in the first of the 30 suits brought against it for damages resulting from the explosion and fire that occurred two years ago at Warren and Greenwich streets.

Work of the Lying-in Hospital.—During the month of October the new Lying-in Hospital, Seventeenth and Eighteenth streets, Second avenue, has had 433 applicants for treatment, of whom 116 were admitted and cared for in the hospital wards. The number of children born in the hospital during the month of October was 82. For the same period in the Outdoor Department 296 applicants have applied for assistance in their own homes; 252 patients have been treated in confinement; 1,270 medical visits were made, and 1,066 visits to assist and aid, 281 patients being helped by trained nurses and a woman to perform various household duties. Through the Diet Kitchen about 500 quarts of milk and 500 loaves of bread, together with tea, coffee, sugar, and oatmeal, have been distributed to deserving cases, and 1,165 garments given.

A Harbor Hospital.—Progress is making in the plan to build a new island in New York Harbor, between Ellis Island and Bedloe's Island, on which to build a hospital for the care of immigrants suffering from contagious diseases. According to the Washington report, the improvement has been recommended by Supervising Architect Taylor, who has been at Ellis Island investigating the needs of additional accommodations for the United States immigrant station. The erection of a hospital on an island in the harbor is made necessary by the action taken in September last by President Lederle, when he notified Commissioner Williams that the Department of Health would, in the near future, terminate the agreement by which the city cares for cases of contagious diseases occurring among the immigrants at the Port of New York. Under the contract either the city or the government may terminate it on 30 days' notice, but President Lederle said that he fully realizes the responsibility of the Department of Health in the matter, and the department will continue to care for the contagious disease patients until the government has provided accommodations for them. "The patients from Ellis Island," said President Lederle, "should not be brought into the city limits at all. They are a source of infection from the time they leave the island until they reach the foot of East Sixteenth street. Besides, they have to be placed in wards where they subject other patients to the danger of mixed infection. In consequence of these mixed infections all the patients have to be kept in the hospital from 15 to 20 days longer than usual, under observation, even if they do not develop other diseases."

Health of School Children.—"School Sanitation" was the subject discussed before the New York Educational Council in the New York University building, Washington Square, on Saturday. Dr. Albert P. Marble, Associate Superintendent of New York city, was the principal speaker, according to the Evening Post, he said in part: "Not the least in importance in a sys-

tem of education is health. If the mind is trained at the expense of the body, if the health is enfeebled in school or by unwholesome conditions, the latter state of the child is worse than the first. School authorities, health boards, and the public as a whole, have come to see that good health is the first requisite to a successful life. We have gymnasiums, instructors in physical culture, a physician to visit each school daily, an examination of each candidate for a place in the teaching corps—to see that no young woman with supersensitive nerves and a strident voice is ever placed before a class of children, to be tormented by the healthy ebullitions of their superabundant activity, and to turn that cheerful and sportive life into the bitterness of angry discontent. And we have schoolhouses palatial in their architecture and construction, fitted with every modern contrivance for beauty, for convenience, and for the safeguarding the health of our children—each one better than the last." Dr. Marble took up the subject of seats and desks, and described how the desks should slope, and how high they should be for each child. He said that the new school furniture is adjustable, but, as a rule, desks and seats are never adjusted, and, so far as he knew, there was no regulation for such adjustment. Mr. Snyder, Superintendent of School Buildings, corrected this by stating that the janitors of the buildings were instructed to adjust the furniture. The proper method of lighting the classrooms was next described, and the speaker advocated revolving desks, so that the pupils could be placed at an oblique angle to the line of windows. By such an arrangement, he said, no two desks would be parallel to each other. The schoolroom wouldn't look natural, but the children's eyes would be benefited, and the seats would be chairs and not shelves on hinges. "Now, if you reflect, can you see any law of either God or man which requires that school desks must be placed at right angles to the side walls, in straight parallel rows?" he said. "And is it a human law or a divine law that has placed the teacher's desk in the middle front of the room? Once there was a platform for every teacher's desk to stand upon—a kind of throne. Now the teacher sits on the same level with the children, and the heavens have not fallen." The windows should reach to the ceiling, and the sills should be three or four feet from the floor, to avoid reflections from the surface of the desks. Shades on spring rollers, white or a very light lavender, to shut out the glare of the sun, were said to be the right thing. Superintendent Charles E. Gorton of Yonkers said he had come to the conclusion that it was almost useless to try to teach teachers how to operate ventilating apparatus, and what was wanted was a system that would work in spite of the teachers. As for adjustable furniture, it was a failure unless the principal of the school was interested sufficiently to see that it was adjusted. Each child, he said, according to a report by a committee of doctors, should have a separate chair, with a slightly sloping spindle back. Another committee of specialists had decided that the best kind of shade was of a robin's-egg blue in color. In the Yonkers schools children are examined twice a year as to their weight, their chest expansion, their eyes, and whether there was any curvature of the spine. The results of this examination were kept on cards, which gave a history of each child's physical condition throughout the school period. Some children had received permanent benefit.

The New York University.—A large number of the New York medical body are interested in the results of a suit which has been carried on for several years between a number of their members and the New York University. By a recent decision of the Appellate

Division of Supreme Court another step has been taken toward the settlement of the controversy between the New York University and its former Medical Faculty, the members of which resigned in 1898, and formed the Cornell University Medical College. The Appellate Division confirms the decision of the lower court ordering the return of the building property to the former owners. The University Medical College, like all others of its kind, was originally and for many years a proprietary institution holding its charter through the New York University, but wholly independent of it in management. In the effort to improve standards and teaching it became evident that this proprietary quality should be eliminated, and the faculty accomplished this by the aid of a gift of money from Col. Payne, by which the ownership of the faculty was canceled and the property was placed in the hands of a corporation formed for the purpose, the faculty agreeing to accept smaller fixed salaries in lieu of the division of the profits. After a few years, with the intention of furthering the same object, it was agreed that the corporation which held the property and managed the affairs of the college, composed largely of members of the faculty, should transfer their property and functions to the New York University, and that the latter should manage the College through a Medical Committee of the Council composed of three members who should be satisfactory to the faculty. On nomination of the faculty two new members were elected to the University Council and with Col. Payne, the donor of the money, constituted this committee. Within a few months disagreements arose over a proposed consolidation with the Bellevue Hospital Medical College; the recommendations of the Medical Committee were overridden by the council and the faculty held that the agreement had been broken. Reestablishment of the original status was refused by the Council of the University and at the expiration of the year the faculty seceded and established the Cornell University Medical College, and the corporation which had transferred the property sued for its return. The New York University then took over the Bellevue Hospital Medical College as its medical department with most of its faculty. The property in question is valued in the pleadings at \$150,000.

PHILADELPHIA.

Typhoid Still Increases.—Official health reports for the week ending Nov. 15 show 148 new cases of typhoid fever, an increase of 24 over the previous week. The deaths were 10 as against eight for the preceding week. Health officials are unable to ascertain the source of the disease. The water supply is not held entirely responsible as the disease is present in the Twenty-first Ward which is supplied with filtered water.

Medical Alumni Smoker.—The first of the year's series of smokers and social entertainments to be given by the Philadelphia Alumni Society of the Medical Department of the University of Pennsylvania was held in the Bourse Saturday evening, Nov. 15. The officers are: President, Dr. S. W. Latta; Vice-Presidents, Drs. Richard Cleeman, G. G. Davis, J. A. Scott, B. B. Wilson, A. C. Abbott; Treasurer, Dr. H. B. Carpenter; Secretary, Dr. B. Franklin Stahl.

New Wing for Rush Hospital.—Plans have been prepared for a new wing to be added to the Rush Hospital for consumption and allied diseases. With the completion of this wing a new system will be introduced at the hospital, that of dividing the building into small rooms instead of wards, each patient having an individual room. A similar change in the wards of the large building will probably be made later.

Pittsburg Medical Students on Strike.—A strike of 150 students at the West Penn Medical College in Pittsburg is reported to have occurred on Nov. 11. Some time ago two new members of the faculty introduced a new method for preserving cadavers for the dissecting room. This, it is said, did not meet with the approval of the students who went out with the avowed purpose of not returning until the old method of preserving the bodies is resumed.

Hydrophobia Still Not a Disease in Philadelphia.

—The question of hydrophobia has again brought the coroner's office into controversy with a physician. A death certificate issued last Sunday by a Dr. Adams gave hydrophobia as the cause of death of a five-year-old boy. This certificate was turned down by the Bureau of Health when a burial permit was applied for, and the case made one for the coroner's office. The father at first refused permission for a postmortem, but finally yielded. He claimed that Dr. J. H. Musser had confirmed the diagnosis of the family physician. An official of the coroner's office replied that "every physician should know better than to issue a certificate giving hydrophobia as the cause of death."

Reception to Dr. Welch.—A reception was tendered Dr. William M. Welch, president of the Medical Society of Pennsylvania, by the Medical Club of Philadelphia, at the Hotel Bellevue, Friday evening, Nov. 14. Dr. Edward L. Duer, president of the club, presided. Brief addresses were made by several physicians. There were 190 physicians present, including members and guests.

Mayor Confident of Early Relief at Almshouse.

Mayor Ashbridge has practically promised early action by councils regarding the overcrowded and unsanitary buildings at Blockley and has advised the advertisement of bids for the new pavilions. He does not agree with Dr. J. V. Shoemaker in his proposed change whereby a department of charities would be created and the work of the Department of Correction transferred to the Department of Public Safety. The Department of Public Safety has so much work in connection with the hospital service that the mayor fears the red tape resulting from the change would interfere with the emergency service of the municipal hospital.

Suicide Ratio Shows Slight Drop During Last Year.

—After showing the general increase of suicides from 1890 to 1900 common to the United States, this city showed a slight decrease during the past year. In 1890 the number was 95, a rate of 9.1 for 100,000 of population. In 1900 the number was 158, a ratio of 12.2. In 1901 the number fell to 153, making a rate of about 12 per 100,000 of population. This is one-fourth less than the average for 50 of the largest cities in the United States.

Judge Davis Defends Juvenile Court.—In a recent address upon the work and results of the Juvenile Court before the new Century Club, Judge G. Harry Davis commended that tribunal and said that its abolition would be a retrogression. A central authority over the probation officers is recommended. After saying that the prevention of crime was more economical than its suppression or punishment and pointing out the value of the court in that direction, Judge Davis summarized its work from June, 1901, to Nov., 1902. The court disposed of 1,793 cases. Of these, 1,112 were delinquents and 681 dependents. Only 27 of the youngsters were returned to court again, 24 appearing twice and 3 three times. The ages ranged from 10 to 14 years and two-thirds of the number were arraigned for petty larceny. Of these 104 were sent to the House of Refuge and the remainder either home, under probation officers, or to charitable institutions.

Officers for the North Branch of County Medical Society.—The North Branch of the Philadelphia County Medical Society has elected the following officers for the ensuing year: Chairman, Dr. H. Brooker Mills; Clerk, Dr. Frank C. Hammond; Committee on Scientific Business, Chairman, Dr. C. L. Felt; Drs. Shea, Shute, Tully, and Good; Committee on Increase of Membership, Chairman, Dr. W. A. Parke, and Drs. Robertson, Babcock, Gerhard, and Bemis. The meetings of the branch are held at No. 1611 Columbia avenue on the second Monday of every month, and all members of the medical profession, whether members of the County Medical Society or not, are cordially invited to be present.

Reforms in State Institutions Suggested.—The annual report of the Board of Commissioners of Public Charities, to be submitted to the next session of the legislature, directs attention to the fact that no steps have been taken by the State toward the erection of an institution for the care of epileptics, for which there is a pressing necessity in Pennsylvania. The board is of the opinion that additional legislation is imperative to prevent abuses in unincorporated institutions which claim to care for the aged and infirm class. Such institutions are too often under the control of persons possessed of poor judgment and little knowledge. Recommendation is made that all such institutions should be chartered, should have responsible managers, and that all entrance fees be invested and only the interest used for maintenance. Provision for the care of the criminal insane will be asked for by the setting apart for this purpose of a building at one of the penitentiaries. The board also suggests a uniform law to ensure the distribution without discrimination of the State aid to hospitals and kindred institutions.

Cause of Typhoid Fever at Atlantic City.—At the meeting of the Philadelphia County Medical Society, Nov. 12, Dr. Philip Marvel of Atlantic City read a paper on the subject of the recent outbreak of typhoid fever in that city. The number of cases was 72, most of them occurring in August and September. The nearest approach to this number was that of the outbreak in 1895 when 48 cases, clearly traced to a polluted milk supply, occurred. To investigate the epidemic of this year the Academy of Medicine of Atlantic City appointed a committee, of which Dr. Marvel was a member. The report of this committee showed that the extraordinary number of cases was due to the pollution of a part of the oyster supply at that period. Dealers had placed oysters to fatten in a canal in which a sewer pipe for convenience had been laid. A break in the pipe occurred and this resulted in the contamination of a portion of the fattening oysters.

Autopsy Statistics with Reference to Tuberculosis and Its Etiology.—At the meeting of the Philadelphia Pathological Society, November 13, Dr. Alfred Hand, Jr., read a paper on the above topic, the statistics including the autopsies performed at the Children's Hospital during the past 10 years. The entire number of autopsies was 332, of which cases 115, or 34.3 per cent., showed tuberculosis. The location of the oldest lesion in each case was noted with the following result: Bronchial, 65 per cent.; mesenteric, 8.7; undetermined (lesions generalized), 23; undetermined (lesions indistinct), 1.7; tonsils .8. Tubercles were present in the heart muscle in 8 per cent. of the cases showing tuberculosis. Dr. Hand had considered that bronchial lesions in such cases were due to infection from the air, but since the result of experiments made in this city in which those lesions developed in a monkey supplied with tuberculous food, there is some doubt regarding this point.

Tissue Changes Induced by the X-ray.—A paper giving the results of investigations concerning these changes was read by Dr. A. G. Ellis. Four cases were reported, in three of which microscopical studies were made both before and after exposures to the X-ray. The most interesting changes were noted in a scirrhous carcinoma of the breast, a portion of which had been given eight 10-minute exposures at intervals of two days, the remainder being covered by a lead shield. Softening of the exposed portion was noted after the fifth exposure. The entire breast was removed by operation and two portions studied. The softening was found to be due to a cavity 1.5 by 1 cm. in dimensions, this containing a fluid showing many large cells the protoplasm of which was almost entirely filled by fat granules. Surrounding the cavity were necrotic portions of the tumor, the epithelial cells being granular and broken with destroyed outline and fragmented or entirely degenerated nuclei. The same degeneration, in varying degrees, was noted in the other cases, two squamous epitheliomas and an endothelioma. But little change was noted in one of the epitheliomas which contained a very large number of "pearls." A summary of the cases showed: (1) Necrosis of cells and trabeculae of varying degree; (2) increase of elastic tissue in the three cases examined both before and after exposure; (3) a tendency to occlusion of vessels by deposits on their inner surfaces. This was marked in some instances, slight in others; (4) practically entire absence of infiltration by polymorphonuclear leukocytes. In regard to the claim of Beck and others that the changes in X-rayed tissue are due to obliterative changes in blood vessels the statement was made that while these changes probably occur they are not in proportion to the necrosis. This suggests the probability of their being results of the same influence instead of cause and effect. The presence of immense numbers of cocci and bacilli in one of the cases after 20 exposures would argue against the bactericidal power of the X-ray. Unsatisfactory clinical results and slight microscopic changes in the epithelioma containing numerous "pearls" emphasizes the importance of cutting or curetting away diseased tissue whenever possible before X-ray treatment is begun.

CHICAGO.

Alexian Brothers' Benefit.—The annual benefit concert for the Alexian Brothers' Hospital was given a few days ago. The net proceeds were \$5,000.

Superintendent at Dunning.—Dr. John R. Neely will soon be the new superintendent of this institution. The resignation of Superintendent A. N. Lange has been accepted.

Registration of Nurses.—Discussion of a bill for the registration of nurses, which will be presented to the next legislature, occupied the time of the members of the Illinois State Association of Graduate Nurses when they held their recent meeting. The bill was unanimously accepted by the nurses. A clause was inserted providing for the admission of registered nurses from other States to the Illinois Association without taking an examination, when the applicants are in good standing.

Smallpox in Evanston.—The smallpox situation in Evanston is discussed in the weekly bulletin issued by the Health Department. Chicago's freedom from the disease, as compared with the suburbs, is ascribed to the vaccination campaign waged by the Health Department. In part, the bulletin says:

"In Evanston, with a population of less than 20,000 by the last national census, there are now 33 cases of smallpox quarantined in 12 houses. In this city,

with a population of 1,700,000 by the same census, there are but 11 cases, and these are all safely housed in the isolation hospital, and the premises on which they were found have been thoroughly disinfected."

Typhoid Fever.—Five more deaths from typhoid fever were reported last week than during the week before, but an examination of the physicians' certificates of the total 18 deaths shows that four of the cases were contracted outside of Chicago, and seven were of a duration carrying the period of infection back to the August water pollution.

The Shore Inn.—This is the name chosen for a new hospital, to be erected at once at Michigan avenue and Eldridge court. It is said the institution will be the most sumptuous of its kind in the country. The hospital is to be built, owned and operated by a corporation made up of the leading physicians of the city. The cost of the building and furnishings will be \$400,000. The structure will be 11 stories high, and the inner arrangement will be more like a high-class hotel. Among the novelties will be bathrooms in each apartment, and accommodations for friends of patients. The officers elected are: President, Dr. Franklin H. Martin; Vice-President, Dr. B. W. Sippy; Secretary, Mr. R. T. Goodell; Treasurer, Mr. J. R. Chapman. These men, with Dr. Wm. M. Harsha, constitute the Directorate. It is thought that the new hospital will eclipse the Roosevelt in New York, the German in Philadelphia, and the Lakeside in Cleveland. The aim of the institution will be to provide the best for those who want the best. The hospital will be associated with no medical school, and it will be absolutely independent of religious sects.

Stockholders.—Among the stockholders, who will be attending physicians, are Dr. Nicholas Senn, Dr. Frank Billings, Dr. John B. Murphy, Dr. E. C. Dudley, Dr. Archibald Church, Dr. L. L. McArthur, Dr. A. J. Ochsner, Dr. Franklin H. Martin, Dr. W. A. Fisher, Dr. H. P. Newman, Dr. W. A. Evans, Dr. F. Henrotin, Dr. J. C. Hollister, Dr. E. J. Doering, Dr. Henry T. Byford, Dr. Harry B. Favill, Dr. Arthur R. Edwards, Dr. D. R. Brower, Dr. J. Clarence Webster, Dr. Joseph Zeisler, Dr. Fenton B. Turck, Dr. E. J. Gardiner, Dr. H. N. Moyer, Dr. E. Fletcher Ingals, Dr. Allen T. Haight.

Myasthenia Gravis.—At a recent meeting of the Chicago Neurological Society, Dr. Harold N. Moyer presented a patient, twenty-three years of age, whose early history was negative, except an undetermined infection of exanthematous type. The patient spoke of having had two attacks of measles about three years ago, but was not very ill. The attacks were near the time when his first trouble with the eyes developed. At that time glasses were fitted for diplopia. Dr. Pusey fitted the patient with his first glasses, and he would give the eye findings.

Dr. Pusey said the patient was first seen by him Nov. 6, 1899, when he complained of double vision. His vision in the left eye was 6/9; in the right eye 6/6; with minus one sphere with half cylinder his vision was 6/5 in the left eye, and 6/5 in the right eye. At that time he had esophoria of 22 degrees, with right hyperphoria. The esophoria later became exophoria. On the 8th of December, one month later, he worked all day until midnight with no blurring of vision, no diplopia at the time. His esophoria had disappeared, but he had slight hyperphoria. On Jan. 4, 1900, he had esophoria of one degree, some hyperphoria. July 3, 1900, he saw him again, when he complained of double vision. He had exophoria of 11 degrees, with positive divergence of the eyes. August 6 he was refracted again carefully with a mydriatic. The refraction had changed $\frac{3}{4}$ D, he having become more myopic with $\frac{3}{4}$ D

cylinder at different axes. He then had an exophoria of 11 degrees. He disappeared on July 6, 1902, and was not seen again until the 26th of Sept., when he complained of double vision all the time, inability to converge the eyes. Vision at this distance was doubled. He noticed paralysis of the internal recti muscles. The eye muscles moved in every direction except the internal recti on both sides. There was no limitation of motion in any direction except the paralysis of convergence, also paralysis of motion on either side on the part of the internal recti muscle. Six weeks ago, there was limitation of motion of the muscles in every direction except one of the external recti. Dr. Moyer saw the patient Sept. 8, at which time there was a marked general weakness; patient complained of stiffness of the lower extremities, feeling as though his knees were bound, as the patient expressed it. There was some pain for a time, but this gradually disappeared. It was not very marked. On two or three occasions, since Sept. 8, patient has had marked ptosis, more marked in the left eye than in the right. It would last for two or three hours at a time, then for a couple of days. It has never been in both eyes at the same time. Until the middle of September there has been progressive loss of strength, which has continued to the present. There has been no marked increase in weakness in the last two or three weeks, but it has remained about as it was. The eyegrounds are normal. Aside from the extreme muscular weakness, there are no objective signs. There is no swaying with the eyes closed. Patient's knee jerks are not marked, but they are to be elicited readily. The superficial jerks are all present. The pupils react to light. At the present time there are no disturbances in pain sense; his sense of feeling is normal. It is simply a pure muscular weakness without appreciable muscular atrophy. There is no disturbance in his general health. His digestion is normal; his bowel movements are normal; his appetite is good; he sleeps well, but the muscular weakness is very pronounced. He has numbness in the index finger; the right hand is a little stronger than the left. The facial muscles are weak. A difficulty of which patient complains is a weakness of his jaw muscles; when he eats, his muscles get tired.

Cerebral Syphilis, Dementia with Nuclear Degeneration of Some Cranial Nerves and Atrophy of One-half of the Tongue.—Dr. Moyer presented a patient, thirty-seven years of age. Four years ago, August, 1898, the patient went to Dr. Ingals for paralysis of the vocal cords. At that time he was very hoarse. He learned from Dr. Ingals that there was complete paralysis of one vocal cord, while the other moved. Patient was given strychnia and local treatment, shortly after which the paralysis disappeared. A year later the paralysis returned. This was two years ago. Then patient was well until the summer of 1901, at which time he did not feel as well as he had previously. There was nothing marked in his history until the autumn of that year, and at that time he had what his wife described as "a spell." Sitting at the table he tipped over some glasses, staggered, and could not find his way about. At this time he was working very hard at his occupation of machinist. He improved until November, after which he became very tired and wanted to lie down most of the time. He slept a great deal. He ceased working last November. About that time he began to see double, the diplopia being vertical. In February of this year his right eye turned outwards. At this time the diplopia was lateral. He then developed pain over the right eye, which later shifted to the top of his head. He then consulted an advertising eye specialist who "pulled" the eye straight and treated

him for one month. Pain then shifted to the back of the head. He resumed his work again during the spring, but did not remain at it very long. He could not work effectively; he could not keep his mind on what he was doing. He made mistakes. He finally had to give up. In June he went to the country, when his throat became worse again. He had some paralysis of the vocal cord, with hoarseness, which disappeared. A few weeks ago his mind began to wander, and it was noted that his memory was impaired. He had difficulty in swallowing, and at night has been wetting the bed. At the time Dr. Moyer first saw him, the patient had a typical Argyll-Robertson pupil on the right side. The light reaction was present in the left eye, but was sluggish. Accommodation of distance was normal in both eyes. There was complete paralysis of the right external rectus. The eye grounds were normal. The movements of the tongue were defective and tremulous. There is a history, although it is somewhat indefinite, of specific infection dating back to ten or eleven years. Some of the symptoms have disappeared under specific treatment. Patient has well-marked atrophy of the left side of his tongue. Under liberal doses of the iodides great improvement in the symptoms followed, particularly of the eyes. His memory is better, also his speech. There were two features of striking interest in this case, the nuclear degeneration, and dementia. The patient has had no emotional exaltation or mental depression. His mind has been weak and feeble; he could not remember where he put things; he could not go to a neighboring store for an errand without forgetting it before he got there. The association of nuclear degeneration with dementia he had not seen before. The atrophy of the tongue was organic. The reason he presented it in connection with the other case was because of the somewhat striking similarity in the eye conditions of the two patients, yet their etiology and pathology were very different. There is little doubt as to the specific history in this case, according to the statements of the physician who treated the patient. He thought the diagnosis to some extent has been cleared up by the marked improvement, both in the physical symptoms and mental state, under specific treatment. At first, when he saw the patient, and noticed the atrophy of the tongue, and paresis of the eye muscles, he thought he had to deal with a case of myasthenia gravis. In regard to the treatment of this case of myasthenia gravis, he had given him strychnia in very large doses.

Tabes, General Paralysis and Charcot's Joint.—Dr. S. J. Walker presented a man who came to the Policlinic Oct. 13th. He was forty-four years of age, married 14 years, and has three living children. The first child his wife had was born dead at term. The other three are living and well, aged respectively eleven, twelve and thirteen. The mother has never had a miscarriage. The patient's occupation was that of a buyer of dry goods. He gives a clear history of specific infection a little over 15 years ago. Otherwise he gives no history of any serious illness; he complained of no trouble until 10 years ago, when he said he had rheumatism in the legs. Upon close questioning him, these pains proved to be of a lancinating character. These pains have continued since, off and on. Seven years ago he had an ulcer at the base of his right big toe, which proved very intractable to the treatment, and consequently this toe was amputated. Three years ago, he began to notice that he could not walk so well in the dark. For the last three or four years he has had difficulty in urinating, a relative incontinence. He has had no eye symptoms of any kind, not even transitory diplopia. No ptosis. This completes the history up

to about seven months ago, when he fell and sprained his right ankle. At the time he said there was a great deal of pain in it, with swelling. The swelling extended as high as the knee. The pain continued off and on for five or six weeks, and then gradually subsided. Since then he has had no pain whatever in the joint, but the swelling of the ankle joint is still present and in degree about what it was a few weeks after the injury. An X-ray picture was taken by Dr. Hazelton, at the Policlinic, but the man shook so much that the Doctor did not succeed in getting a good skiagraph, so that the negative was valueless. The enlargement of the foot is not due to bony formation, in the opinion of Dr. Hazelton. He thought it was cartilaginous enlargement. The patient had been working at his trade up to the time of the injury, six or seven weeks after the injury, when he returned to work, he noticed impairment of his memory. He had considerable figuring to do on articles of apparel, and was discharged at the end of five or six weeks because of the mistakes he made in his work. Upon examination, the Argyll-Robertson pupil is found. He has no knee jerks. He has analgesia of the legs, and patches of anesthesia upon the trunk. He has slight analgesia extending over the patch of anesthesia on the right side behind. The anesthesia was marked in the patches that are shown on the chart. He has the characteristic stumbling speech. He has shown considerable dementia. In short the mental condition is plainly that of general paresis. The patient is exhibited on account of the rather unusual combination of diseases and the Charcot's joint. The diagnosis is made of tabes with perforating ulcer of the foot and Charcot's joint of the right ankle, and finally general paresis supervening on the tabetic affection.

Lead Palsy.—Dr. Walker also presented a man, who presented himself at the clinic on Oct. 13. He is thirty-three years of age, and works in a planing mill. He has five children, all of whom are well and healthy. His wife has never had a miscarriage. The family history is fairly good. The patient has never been exposed to metallic poisoning, so far as he knows, nor to arsenic, nor has he been subjected to any drug intoxication. Three years ago he was at the Alexian Brothers' Hospital for three weeks, and was thought to have consumption. A careful examination at the present time does not reveal any lesion in the lungs. He has never had any infectious disease, and has never been seriously sick. He considered himself perfectly well until about 15 weeks ago, when he noticed swelling in his wrists and in his ankles, with some pain. The pain passed out of the ankles almost immediately, and after two days in bed he was able to walk around. About the second day he noticed weakness in his wrists and hands, and at the end of three or four days he suddenly lost power in his wrists. In other words, he had double wrist-drop. Since then his condition has been about the same; no paresthesia; no subjective symptoms of any kind except wrist-drop. Upon examination Dr. Walker finds that patient has double wrist-drop with the supinator involved on the right, but not on the left, side. Paralysis of the extensors is more marked upon the right than the left side. Patient is right handed. There is partial reaction of degeneration in all the extensor muscles, and supinator on the right side, this being more marked on that side than on the left. There is no objective sensory disturbance. His knee-jerks are equal and normal. The one pupil responds to light and to accommodation (the other eye is artificial). Patient looks cachectic, and an examination of the blood shows 75 per cent. hemoglobin, reds 3,568,600, whites 4,100. Dr. Walker spoke of one thing

which may be a very valuable indicator in cases of lead poisoning, and that is the presence in the red cells in nearly every case of lead poisoning, if the case is at all severe, of little granulations. These are found in every field in any severe case of lead poisoning. From a medico-legal standpoint, Grawitz, of Berlin, who does much good work on blood, regards these small granulations of great value, because when once present they do not disappear until the lead is out of the system. Dr. Walker examined this patient's blood for these granulations in the red cells, and was unable to find them. He examined five or six specimens, each one of which was negative. This man is not addicted excessively to either alcohol or tobacco. At most, he drinks four or five glasses of beer daily, and usually not that much. Patient was closely questioned as to exposure to metallic poisoning, and Dr. Walker had not been able to elicit any cause for the enuresis. It corresponded in distribution to lead palsy, except that the supinator on the right side is involved. The patient has a questionable lead line. The condition of the gums is so bad, almost scorbutic, that it is difficult to say positively that there is a lead line. He has never had lead colic, although that is usually the rule preceding lead palsy.

CANADA.

Annual Meeting—Montreal Maternity Hospital.—The fifty-eighth annual meeting of the Montreal Maternity Hospital was held last week with Dr. Roddick in the chair. It is proposed in the near future to erect a fine new building at a cost of \$100,000. A site has been secured at a cost of \$25,000. The medical report which was presented by Dr. J. C. Cameron showed that there had been 239 patients treated during the past hospital year of whom three had died. A donation of \$1,000 was recently received from Mrs. James Ross towards the building fund.

No Sanitarium By-law for Toronto.—During the past week the Board of Health of the city of Toronto met and considered the proposal of the Anti-Consumption League for the submission of a by-law at the municipal elections in January to secure a grant of \$50,000 to inaugurate a fund for a free consumption sanitarium to be erected within 12 miles of the city, the League undertaking to raise another \$50,000 by private subscription. It was decided in the face of a numerously signed petition to oppose the submission of any such by-law. The Medical Health Officer, Dr. Sheard, told the Board that Toronto was in a much better position now than it was a year ago as regards the treatment of consumptives. No hospital in the city would refuse admittance to any bedridden consumptive; and since June 9th last the Gravenhurst Sanitarium had received 27 incipient cases on city orders.

New Memorial Hospital Opened.—On Nov. 20 a fine hospital was opened in the town of Lindsay, Ontario. It consists of a main building and two large wings; and is to be known as the Ross Memorial Hospital, being the gift to the corporation of the town of Lindsay by Mr. James Ross, the multimillionaire of Montreal, in memory of his mother who for many years was a resident of the town.

A New Children's Hospital for Montreal.—It is proposed to erect a new hospital in Montreal in the near future, either on Mount Royal or in the country adjoining the metropolis, for the reception of children of eastern Canada suffering from such diseases as tuberculosis and deformities of the limbs or spine. The hospital will be built as a memorial to the late Queen Victoria and will be called "The Children's Memorial Hospital to Queen Victoria." It is to act as an ad-

junct to the General and the Royal Victoria Hospitals, and will have not less than 15 beds. The following have consented to act on the medical board: Dr. Francis J. Shepherd, senior surgeon, Dr. A. D. Blackader, and Dr. H. B. Cushing.

The Matriculation of the Ontario Medical Council.—At the last session of the Ontario Medical Council a resolution was adopted regarding the matriculation of medical students which has caused those students who desired to practise in the province of Ontario, no little amount of concern. Apparently this resolution required all matriculants to present a certificate before being registered by the Council as a medical student that "He had passed the examination conducted by the Educational Department of Ontario of the course prescribed by the Honor Matriculation in arts, chemistry and physics." The students now want to know whether honors will be required in all subjects in the Arts curriculum, which they claim will be tantamount to prohibition of the study of medicine as very few now take honors in all the subjects. The Medical Department of Toronto University has taken the matter up with the Minister of Education, with a view to having the indefinite wording in the clause interpreted.

Aftermath of Hallowe'en.—On the night of Hallowe'en a body of Toronto Medical students were pursuing their way peaceably to their homes after having been entertained by Dr. Reeve, Dean of the Medical Faculty, were set upon by a body of mounted policemen who rode them down and with rawhide whips in their hands scattered them in all directions. The result was that some of the medical students received very serious injuries. Dr. Reeve who was an eyewitness of the whole affair, had the conduct of the police brought to the attention of the Board of Police Commissioners, with the result that after an investigation of several days' duration, the policemen have been heavily fined for exceeding their duty. The affair created a great deal of bitter feeling amongst the very large student body generally throughout the city.

GENERAL.

More Substitution.—We have had occasion from time to time to point out the enormity of this great evil whereby physicians not only do not get the drugs, or proprietaries they actually prescribe nor the public their patent medicines and proprietaries. The substitutes are abroad. We learn from Massachusetts Medical Journal of Nov. 2 that attempts are being made to substitute inferior articles for Phillips' well known Milk of Magnesia, and we know the recent attempts in the same State to defraud the rights of the Breitenbach Company in their Gude's Pepto-Mangan. Similarly false capsules of Colchisal are now flooding the market.

Appointment of Professor Ribbert.—Professor Ribbert of Marburg is to take Professor Orth's place at Göttingen.

Vital Statistics in Germany.—From a recent German census, it appears that vitality is greater in women than in men. Of the former there are 655,196 between sixty-five and seventy years; while but 544,806 men have attained that age. Among the centenarians were found 9 men and 32 women; and of the latter, 3 were one hundred and five years old.

Golgi's Scientific Jubilee.—The jubilee of the illustrious biologist was recently celebrated at Pavia with appropriate ceremonies; and in the evening Professor Golgi invited his friends and visiting scientists to his home to celebrate his silver wedding which occurred coincidental with his professional jubilee.

A Correction.—The Surgeon-General desires to call attention to an erratum in the report of the

Surgeon-General of the Army to the Secretary of War for the fiscal year ending June 30, 1902. On page 45, the death rate from all causes for the year 1901 is incorrectly given as 19.94 per thousand. It should read 13.94 per thousand.

American Physicians' Congress.—The preliminary programme of the sixth meeting of the Congress of American Physicians and Surgeons, to be held in Washington, D. C., May, 12, 13 and 14, 1903, announces the following subjects to be considered: "The Pancreas and Pancreatic Diseases." Papers will be read as follows, viz: By Dr. E. L. Opie, of Baltimore, Md., on the Anatomy and Histology; by Prof. R. H. Chittenden, of New Haven, Conn., on the Physiology and Physiological Chemistry; by Dr. Simon Flexner, of Philadelphia, Pa., on the Etiology and Pathological Anatomy; by Dr. Reginald H. Fitz, of Boston, Mass., on the Symptomatology and Diagnosis; by Prof. von Mikulicz, of Breslau, Germany, and by Dr. Roswell Park, of Buffalo, N. Y., on the Surgery; followed by a discussion by Drs. Chas. G. Stockton, Herbert U. Williams and Maurice H. Richardson. 8 P. M.—Address by the President of the Congress, William W. Keen, M.D., LL.D., Professor of Surgery in the Jefferson Medical College, on "The Duties and Responsibilities of Trustees of Medical Institutions." Wednesday, May 13, subject to be considered: "The Medical and Surgical Aspects of the Diseases of the Gall-Bladder and Bile Ducts." Papers will be read as follows, viz: By Prof. Ewald, of Berlin, Germany; by Dr. John H. Musser, of Philadelphia, Pa.; by Dr. C. A. Herter, of New York City, on the Pathology and Therapy; by Prof. Hans Kehr, of Halberstadt, Germany, A Review of Eight Hundred Cases of Gall-Stone Operations; by Dr. William J. Mayo, of Rochester, Minn.; by Dr. George E. Brewer, of New York City, on the Surgery; followed by a discussion by Drs. Frank Billings, George Dock, W. S. Halsted and Henry Sewall.

Virtue of Coffee.—Recent work of Professor Luderitz has brought to light additional facts concerning the antiseptic properties of coffee. It was found that in a pure infusion of coffee, five per cent., the typhoid bacillus dies in two to three days, and more rapidly if the strength be increased to 30 per cent. Pyogenic germs die within three days in 20 per cent. infusion, and the germ of erysipelas in a day, in an infusion of 10 per cent. This probably explains how the Persians cure their cholera patients through administration of pure, strong coffee in large quantities. According to Luderitz, the antiseptic principle is neither caffeine nor tannin, but a substance known as *caffebene*.

American Public Health Association, New Orleans, La., Dec. 8-13, 1902.—The Southern Railway announces for the meeting of the above association a rate of one and one-third fare for the round trip. Tickets on the certificate plan will be on sale December 4 to 10. The Southern Railway operates from New York three trains daily, carrying Pullman Sleeping and Dining Cars on all trains. From New York to New Orleans, 39 hours. The Municipal Journal and Engineer, of New York has arranged for special Drawing Room, Compartment Sleeping Cars to leave New York Saturday, Dec. 6, at 4:25 P. M., arriving at New Orleans, Monday morning, Dec. 8, at 7:25 A. M. This train composed exclusively of Pullman Sleeping, Dining, Club, and Library Observation Cars.

Changes in the Medical Corps of the Navy, Week Ending Nov. 15.—Medical Inspector J. R. Waggener, detached from the Marine Recruiting Station, Boston, Mass., and ordered to the Navy Yard, Mare Island, Cal. Surgeon J. W. Baker, retired, ordered to

the Naval and Marine Recruiting Station, Boston, Mass. Surgeon N. H. Drake, detached from the Navy Yard, Mare Island, Cal., and to continue duty on "Solace." Passed Assistant Surgeon J. M. Moore, detached from the "Indiana" and ordered to the "Raleigh," when in commission. Medical Director G. F. Winslow, detached from the Naval Recruiting Station, Boston, Mass., and directed to wait orders. Acting Assistant Surgeon H. Shaw, appointed Assistant Surgeon from October 28, 1902. Passed Assistant Surgeon A. W. Dunbar, detached from Navy Yard, Puget Sound, Wash., and ordered to the "Wyoming" when commissioned. Passed Assistant Surgeon A. R. Alfred, ordered to the Navy Yard, Puget Sound, Wash. Passed Assistant Surgeon E. J. Grow, detached from the Navy Yard, New York and ordered to the "Marblehead."

Obituary.—Obadiah Newcomb, M.D., one of the oldest practising physicians in the city died yesterday at his home 233 East Twelfth street, in his eighty-second year. He was born in this city and had always lived here. He was graduated from Columbia College and in 1850 took the degree of M.D. at Castleton, Vt. He practised after that up to four days ago. His father was the Hon. Obadiah Newcomb, who served two terms as State Senator. Dr. Newcomb leaves two sons and a daughter.

CORRESPONDENCE.

OUR LONDON LETTER.

(From Our Special Correspondent.)

LONDON, November 8.

DEATH OF LENNOX BROWNE—THE TRAGEDY OF A SURGEON'S LIFE—A STORY OF SIR WILLIAM JENNER.

LENNOX BROWNE, whose name is familiar to all who take the upper air passages as their province of practice, died last Sunday of cancer of the liver. He was but little over sixty, and not long ago looked as if he had many years of life before him. Although he had a large practice, and contributed much to the literature of his specialty, he was less esteemed by his profession than by the public. He had many friends in Bohemia, hence it came about that readers of the minor society journals and newspapers of the baser kind had frequent opportunities of becoming acquainted with his name and achievements. He was assistant to Morell Mackenzie for seven years and in that position had a fine field of practice, not only in the art, but in the trade of specialism. And, like Shylock, he bettered his teacher's instruction. Mackenzie used to say of him and another of his assistants, who had not yet crossed the Styx, that if they could have been joined together, they would have made an excellent practitioner, Browne supplying the diagnostic faculty and the other the therapeutic resourcefulness. Browne's practice in his early years of independent work lay very largely in dramatic and artistic circles, and among the *minora sidera* of journalism. This line of business is not directly profitable here, but indirectly it is valued by aspiring spirits as an advertisement. Morell Mackenzie's prolonged absence from London, when he was in attendance at the sick-bed of the late Emperor Frederick, was however a windfall to Browne, who got the largest share in the spoils for which all the smaller fry of laryngology were scrambling. Browne's additions to the sum of knowledge concerning diseases of the throat, nose and ear, are not of much importance either in quantity or quality. His books, however, containing as they do the record of a large experience, are of considerable value from the clinical standpoint. He illustrated them him-

self with great artistic skill. Indeed I have always thought that his true vocation was art. He was from the age of eighteen a constant exhibitor at various art galleries and his sketches have sometimes been mistaken for Turner's even by experts.

It is remarkable that a man with such gifts should have been so little honored by his own profession. For this doubtless he was himself chiefly to blame; what Dr. Johnson said of the elder Sheridan—that he got on very well till his character overtook him—might be applied to Lennox Browne. But he was unfortunate in the circumstances of his early life. He began his career when specialism of any kind stank in the nostrils of the profession, and when laryngology as the youngest of an evil brood was regarded with special abhorrence. It was this attitude of the medical Pharisees, much more than any misdeeds of his own, that made an Ishmael of Morell Mackenzie; while on Lennox Browne, a man of coarser moral fiber, its effect was to harden him into indifference to public opinion. Even now that laryngology has taken its place among the recognized departments of medical practice something of the original taint remains, and its adepts might say, with Hamlet, that virtue cannot so inoculate their old stock that they shall relish it.

Lennox Browne's worst misfortune, from the professional point of view, was that he was the son of his father. He was the son of Isaac Baker Brown, one of the pioneers of ovariectomy in this country, and a really first rate operator, combining boldness with judgment. His first two or three cases were unsuccessful, and one of his colleagues at St. Mary's Hospital, a worthy man-midwife, whose name is now forgotten, threatened that if another death occurred from the same cause he would insist on a coroner's inquest being held. Baker Brown nevertheless persevered, and he would probably have overshadowed Spencer Wells, who, as an operator, was distinctly his inferior. At the height of his success, however, he became the victim of what can only be called an obsession which finally wrecked his career. Becoming persuaded that the clitoris was, so to speak, the storm-center in hysteria, he came to the conclusion, logical enough in itself, that the removal of the peccant part would cure the disease. So far his theory was no worse than many others by which it has been sought to explain the genesis of that mysterious affection; and the success of the operation seemed to him, as is always the case, to prove the truth of the theory. Then came cases of failure, with complaints from disappointed patients and threats from husbands who considered themselves injured. But the surgeon became more and more infatuated with his idea till at last, as I have been told by men who were in a position to know the facts, there was engendered in him an irresistible impulse to excise the clitoris of every woman who came to him. The matter became a scandal and was brought before the Obstetrical Society which expelled Baker Brown. The feeling against him was very high, but fuller knowledge and consideration of all the circumstances have made some of those who were foremost in denouncing him, more than doubtful of the justice meted out to him. The fact remains—and it should be a warning to zealots for what they think the honor of the profession—that Baker Brown was ruined and died in a mean lodging in Osnaburgh street. Lennox Browne, whose real name was Isaac Baker Brown, thought it expedient to change his name. But to his credit be it said, he did not abandon his father in the evil days on which he had fallen. Out of the scanty earnings of a professional beginner he kept his father from starvation and did what he could to lighten the dark shadows which surrounded his death-bed. For

this, I think, much should be forgiven to Lennox Browne.

The mention of Osnaburgh street recalls a very different man, Sir William Jenner, who in that squalid quarter commenced his professional career. There he kept a "doctor's shop," and held a position in society which, as I once heard him tell a large audience of medical students, the humblest of the humble among them would despise. A good story, which to me, at any rate, is new, is told in the "Random Reminiscences" of Charles H. Brookfield, just published. Brookfield is the son of the Mrs. Brookfield to whom so much of Thackeray's correspondence is addressed. He was formerly on the stage where he did not rise to fame. But he has a great reputation in Clubland as a *raconteur*. He relates that on meeting Sir William Jenner by chance in a railway carriage the great physician remembered all the symptoms of the Brookfield family for several generations. Jenner told him in his student days he once went to the Haymarket, not so much to see the play, as to see Queen Victoria and Prince Albert, who were to visit the theater. There was a big crowd and a long wait. "When the doors were opened," says Sir William, "I heard a tearing sound, and I discovered that my coat had been torn in two from the tails to the collar. I hailed a coach and drove home in high dudgeon, and I exclaimed to myself, 'I'm d—d if I'll ever go and see the Queen again!'" One can easily fancy how Jenner's sharp little eyes twinkled as he told this story on the way back from one of his periodical visits to Royalty.

TRANSACTIONS OF FOREIGN SOCIETIES.

French.

GUMMATOUS CELLULITIS SIMULATING A MALIGNANT TUMOR OF THE PELVIS IN AN HEREDITARY SYPHILITIC—CAUSES OF DEATH AMONG THE VICTIMS OF THE SECOND ERUPTION OF MONT PELEE—PROSTATECTOMY—PNEUMOCOCCIC THYROIDITIS IN A VICTIM OF BASEDOW'S DISEASE—WORD-DEAFNESS DURING THE COURSE OF A GENERAL PARALYSIS—RETAINED CHLORIDES OF THE URINE—THE UTILITY OF RHYTHMICAL TRACTION ON THE TONGUE.

THE October meetings of the scientific societies in France and especially in Paris were very instructive. A number of vexed questions were carefully discussed as follows:

A. FOURNIER, at the Academy of Medicine, Oct. 21, 1902, read a paper on Gummatous Cellulitis Simulating a Malignant Tumor of the Pelvis in an Hereditary Syphilitic. He was called last December to see a sick man, thirty-four years old, who suffered in a vague manner in the pelvis and from symptoms of interference with the bladder and rectum. Abdominal palpation and rectal touch revealed in an exact manner the existence of an infiltration resembling woody carpeting, as it were, throughout the entire pelvic cavity, and having many of the features of syphilitic disease. In no direction could any enlargement of the lymphatic lobes be discovered, neither could he find any of the stigmata of syphilis. It is worthy of note that while this man had had 15 brothers and sisters, 12 of them died, and most of these in infancy. Moreover, among the survivors, there was one who presented at the base of the eye undeniable signs of congenital syphilis. On account of these findings he gave to the patient an energetic syphilitic treatment, consisting of injections of benzoate of mercury, 0.02 grams, and ingestions of iodide of potash, 4 to 6 grams. The treatment had hardly been instituted two weeks before distinct improvement appeared. Ten days after this there was no doubt whatever but that this pelvic exudate was under-

going resolution, and two months after the beginning of the treatment there was not the slightest sign of it. In a parallel degree his general condition improved in a most happy manner. He gained eight kilograms in weight and was relieved of all his old troubles with the bladder and rectum, and considered himself cured and states that he is at the present time in this condition. There is therefore no doubt that this lesion was a large gumma in the cellular tissue of the small pelvis, which was the product not of an acquired but of an hereditary syphilis, which apparently manifested itself late, namely, at the age of thirty-four, and which was not preceded by any other symptom of this disease. Another interesting point deserving attention consists in this: That in this patient, as in his brother, the hereditary syphilis, with the exception of the signs within the eye in the latter, did not manifest itself by any appreciable stigma. This is the more surprising when one remembers the very great mortality in infancy among the other members of this family. This alone made it likely that there was syphilis in the children. Aside from chronic lead-poisoning and the chronic poisoning from nicotine among those who work in tobacco, syphilis is of all maladies, including tuberculosis and alcoholism, the one which causes abortions and death in infancy most repeatedly.

KERMORGANT read a paper concerning the Causes of Death Among the Victims of the Second Eruption of Mont Pelee in Martinique. During the night of August 30 or 31 a new eruption broke out from Mont Pelee which devastated the communities of Mont-Rouge and Ajapa-Ponillio. The number of dead known in this second catastrophe was 625. Moreover, the physicians were able to find 70 persons killed directly by burns of the first, second or third degree. All of the cadavers recovered, excepting one, were divested of their clothing, just as after the first eruption. Beside this class of cases, burned entirely, corpses which showed not the slightest trace of burn were easily found. Moreover, there were persons who were very close to the path of the disaster who were stricken with light oppression, but otherwise able to leave without injury. From these three categories it is possible to suppose that the storm-cloud was strongly charged with electricity, which might explain certain phenomena presenting close analogies with lightning. For example, the case of a mother whose ear was slightly burned by it, while the infant in her arms was horribly burned. Moreover, a short time after the eruption, a strong odor of ozone was perceived in Fort-de-France. It is therefore possible to conclude that in addition to the deaths occurring from suffocating gases or from burning cinders or from a temperature high enough to melt glass, there were many which were analogous to death by electricity.

LEGEN, at the Society of Surgery, Oct. 30, 1902, read a paper on Prostatectomy, suggested by the observations offered at the last meeting on this operation. The speaker stated that he had done the operation 12 times without any technical difficulty. In two of his patients the rectum was opened, but he sutured the wound and no inconvenience resulted. As to the urethral wound, he found the rule to be that it cicatrized in two or three weeks. He is not a partisan of morcellation of the prostate. Among his 12 operations he had one death, in a patient seventy-two years old, already suffering from urinary cachexia, chronic and extremely advanced. So far as the functional results are concerned, they were very satisfactory in most of his cases. To appreciate these at their correct values, it is necessary not to forget the inefficiency of all other surgical measures which so far have been proposed against hypertrophy of the prostate. From the point of indications for prostatectomy one must always consider prostatic

dysuria as sufficient to render the operation justifiable, although this may be followed by a certain amount of incontinence. Prostatectomy is not indicated in his opinion excepting in those cases which have retention, complete in degree, caused by a very large gland. When, however, the degree of hypertrophy is moderate, a different intervention should be tried. If there is stone in the bladder, complicated by hypertrophy, then the operation should be done.

LE GENDRE, at the Medical Society of the Hospitals, Oct. 17, 1902, described an observation of a woman twenty-seven years old, afflicted with an exophthalmic goiter, who was seized 48 hours after defervescence of a pneumonia at the apex of the lung with great pain, enlargement, edema at the level of the thyroid gland. The application of warm or hot compresses at this region terminated the inflammation. What gives interest to this case is the number of records of thyroiditis following pneumonia ending in suppuration. The reason why the germs of pneumonia should localize themselves in this gland probably lies in the fact that it had already been the seat of profound alterations.

JOFFROY described an autopsy on a general paralytic, who during life had shown word-deafness, and whose brain presented the lesion of sclerosis scattered over the surface of the cortex, as is the rule in these patients. They were most prominent, however, in the region of the temporal lobe, and especially in the lower part of the first convolution of this lobe.

MILLIERE, at the Society of Biology, Oct. 18, 1902, communicated the results of experiments which proved that during the course of a certain number of diseases, such as acute osteomyelitis, peritonitis, appendicitis, renal colic, uncontrollable vomiting in pregnancy, etc., there is almost always present a notable retention of urinary chlorides. There is, therefore, a great indication for making these urinary tests prior to undertaking a surgical operation.

LABORDE, at the Academy of Medicine, Oct. 14, 1902, related a certain number of facts which demonstrated that, contrary to an opinion recently formulated, rhythmic contractions of the tongue play a very important part in cases of poisoning by carbon oxide gas. The speaker insisted particularly upon the influence of organic mechanical reflexes upon the respiratory center in order to obtain a successful result. If one confines himself, for example, to the inhalations of oxygen in a case of asphyxia, without having recourse at the same time to these rhythmical tractions of the tongue or to artificial respiration, failure is likely to follow. It is indispensable to renew from time to time these tractions on the tongue upon poisoning cases as well as upon those in which the asphyxia is mechanical, as in drowning or strangulation. It is also necessary to direct one's efforts against suspension of the heart and in addition, to combat the effects of the poisoning upon the organism. What is true of coal gas is also true of other gases, such as illuminating gas, and those that are found in excavations.

BYWAYS OF MEDICAL LITERATURE. XI

PRONUNCIATION AND ORIGIN OF VIRCHOW'S NAME

SINCE Virchow's death attracted general attention to the immense work that he accomplished in so many lines, the physicians of the world have been asked over and over again for the pronunciation of his name. At medical meetings it is quite the custom to have three or four successive speakers who mention the distinguished father of cellular pathology pronounce his name very differently. There is more difference of opinion with regard to it than with regard to almost anything else. Not long ago it is said that a German scientist

traveling in France was complimented on the great work that 'Workcow' (*sic*) had done for modern science and he fell not a little in the estimation of his French friends when he said that he had never heard of the man. It was only after some reflection that he realized who was intended.

It is not alone for foreigners, however, but even for Germans themselves that Virchow's name has proved difficult of pronunciation. As a matter of fact the name is originally derived from one of the Slav languages. The family comes from Pomerania where there is a village and lake of the name and the name has existed there at least since the beginning of the sixth century, when invading Slavs settled in the Province. The name is not pronounced, however, entirely according to Slav methods, but has been modified somewhat by centuries of German association.

A rather amusing story is told of the pronunciation of his name at the banquet in honor of Virchow's eightieth birthday last year. Lord Lister in his address to the distinguished medical patriarch and guest of the evening called him Wirtchow. A well-known Russian colleague called him Wirkoff. Signor Bacceli, the Italian Senator and medical professor addressed him as Wirt-scho. What the Frenchmen called him it would be next to impossible to reproduce in English. When Professor Harnack, the well-known authority on biblical exegesis addressed him as Professor Fircho, the 'f' being pronounced soft as in 'fair,' the 'ch' like 'k' but with the German guttural, Virchow smiled very pleasantly and turning to the colleague who was nearest to him at table said that it was the first time he ever remembered hearing his name properly pronounced at a public function. Those who have made mistakes in the past may feel that they were not alone.

To those who are interesting in the animosities of races in central Europe it may be a matter of no little surprise to find that this representative scientist of the nineteenth century, whom all the world is accustomed to consider as a typical exponent of German methods and German thought is really an old-time descendant of the Slavs with whom the world generally is unaccustomed to associate the idea of great progress in science. Virchow himself while much more liberal-minded than Mommsen and some other of his great contemporaries had very little sympathy with the so-called Slavophile movement that has recently disturbed the German-speaking countries.

MANKIND IN THE MAKING.—ALCOHOLISM.

Some quotations from the articles by H. G. Wells, that are appearing simultaneously in a prominent English magazine and in the *Cosmopolitan* in this country, will show how many problems connected with medical biology can be treated in a way to be of general interest and how many are the thinkers who, at the present moment, are engaged in such problems. Mr. Wells takes occasion to say that there are many medical men who like Mr. Archdall Reid broaden the narrowness incident to daily practice by attention to these great issues. Dr. Reid is the author of *Alcoholism*, a book in which he states that he considers the drink craving a simple specific inheritance. Races which have been in possession of alcoholic drinks the longest, are the least drunken and this he ascribes to the elimination of all those whose drink craving is too strong for them. Nations unused to alcoholic drinks are most terribly ravaged at its first coming to them. They may even be destroyed by it, in precisely the same way that new diseases, coming to peoples unused to them, are far more malignant than among peoples who have suffered from generation after generation. Such instances as the terrible ravages of measles in Polynesia and the ruin

worked by firewater among the Red Indians, Dr. Reid quotes abundantly, to prove his thesis. He infers from this that interferences with the sale of drink to a people, may in the long run do more harm than good, by preserving people who would otherwise be eliminated, permitting them to multiply and so, generation by generation, lowering the resisting power of their race. He proposes to divert temperance legislation from the persecution of drink makers and sellers to such remedies as the seclusion of irredeemable drunkards, their punishment if they incur parentage and the extension of the causes of divorce to include this ugly and disastrous habit.

Mr. Wells is not in accord with Dr. Reid's theory. He believes that many causes and many temperaments go to the making of drunkards. He considers that the ugly superstition of hereditary craving may act with absolutely paralyzing effect upon some credulous youngster, struggling in the grip of a developing habit. "It's no good trying"—helps the young man down hill, not up it. There is no denying that those nations that have had fermented drinks longest are the soberest, but the nations which have had fermented drinks longest are also those that have been civilized the longest. The passage of a people from a condition of agricultural dispersal, to a more organized civilization means a very extreme change in the conditions of survival, of which the increasing intensity of temptation to alcoholic excess, is only one aspect. Even if Dr. Reid's conception of immunity production be conceded it is quite conceivable that the world could purchase certain sorts of immunity too dearly.

The manner in which the various aspects of these interesting subjects is discussed, shows what a hold biological and medical terminology has secured in the expression of ideas referring to anthropological subjects generally. Physicians are probably in a better position to help on by careful observation the ultimate solution of these important questions than any other single class of men. It is observation rather than theory that is needed. Medical men owe it to themselves and their profession that their frequent valuable opportunities for observation in these important subjects shall not be allowed to pass without the collection of exact information that will be of great utility when definite conclusions on these subjects are to be reached.

HÄCKEL'S PHILOSOPHY OF LIFE.

Life and its problems, the question of its origin, its progress, the relation of vital energy to other forms of energy have always had a special interest for medical men. Most of them follow more or less closely the progress of scientific thought in this matter and Häckel's Riddle of the Universe, as by some rather inexplicable transformation the World Riddles of the German became in English dress, attracted no little attention when published a year ago.

It is often thought by those not in touch with German biological science that Häckel's position with regard to life and his materialistic attitude towards vital energy and the origin of life are characteristic of modern scientific thought in Germany. How untrue such an opinion is may be gathered from the fact that Häckel himself was fond of saying that such men as Virchow, Helmholtz and Du Bois Raymond were either too timorous to express their opinions or advancing years had made them too conservative to express their real convictions of agreement with him. As a matter of fact Häckel was almost alone in the radical position of monism and has lost rather than gained adherents in recent years.

Häckel himself has lost prestige among German scientists because his later original work has not ful-

filled the promise of his early years. He has been a publicist not an investigator.

The opinion of an American thinker in similar lines, Prof. Frank Thilly, of the University of Missouri, was recently expressed as follows in a formal address:

"Häckel's World Riddles' proves conclusively that no man can neglect philosophy with impunity, and justifies the existence of a discipline like philosophy. Men will philosophize, even natural scientists—that is plain—and so long as they continue to do that it is essential that they do it well. And they cannot do it well without being trained to the work. It is just as impossible for a man to ignore the history of philosophy and to attempt to originate a system without regard to the race's experiences in system-building stretching over a period of 2,500 years or more, as it is for him to accomplish anything in physics or biology without profiting by the intellectual labors of the past and present in these fields. The man who tries to construct a system of philosophy in absolute independence of the work of his predecessors cannot hope to rise very far beyond the crude theories of the beginning of civilization. Häckel, of course, is not wholly unacquainted with the history of philosophy, but his utterances usually make the impression on one that he has never done any serious work in this line, that his knowledge is largely based on hearsay, as it were. He certainly seems to be ignorant of modern psychology, otherwise he could not speak of it deprecatingly as he does. His criticisms may perhaps fit the psychology of 50 or 100 years ago; they surely are not apt to-day. Here Häckel appears to be fighting windmills of his own making. It is also plain that he is unfamiliar with modern epistemology and that a closer acquaintance with that subject would have saved him from falling into error and contradiction."

FOUNDATIONS AND ADVANCE IN SCIENCE.

We are evidently just entering upon a period when foundations for research work in all sciences are to be frequent. This might be presumed to mean a great immediate advance in science and a series of original observations of eventually great practical importance. As a matter of fact, however, experience has shown that really great discoveries usually come from the most unexpected quarters. It is the man rather than the opportunity, urgent necessity rather than supposedly fertile leisure that gives progress in science. "The rifle does not make the marksman nor the laboratory the investigator," a recent acute observer in Germany said. One of our greatest American scientists, Prof. David Starr Jordan, president of Leland Stanford University, called attention not long ago to the danger there is of our being deluged by a flood of sciolism rather than true science. What he has to say on the subject is evidently the result of his own experience and it is so well said that it would deserve a place in the commonplace book of every one who has an interest in scientific investigations, and who deprecates the rushing into print with half-baked science, unfortunately so common at the present time. Apparatus is necessary in physical science. Collections and equipment are really the outgrowth of the men that use them. You cannot order them in advance. Prof. Häckel once said bitterly that the results of research in the great laboratories were in inverse proportion to the perfection of their appliances. An investigation may be lost in multiplicity of details or in elaboration of preparation. Some men will spend years in getting a microscope or a microtome just right and then never use it. It is said that the entire outfit of Joseph Leidy, one of the greatest of our microscopists, cost just \$75. It was the man and not the equipment that made his investigations luminous.

Publication is necessary, but it would be the greatest of mistakes to measure a university by the number of pages printed by its members. Much of the so-called research even in Germany is unworthy of the name of science. Its subject-matter is not extension of human experience, but an addition to human pedantry. To count the twists and turns of literary eccentricity may have no more intellectual significance than to count the dead leaves in the forest. Statistical work is justified not by the labor it requires, but by the laws it unveils. Elaboration of method may conceal the dearth of purpose. Moreover, it is easier to string the web of plausibility than to recover the lost clue of truth.

Of a thousand doctors' theses each year, scarcely a dozen contain a real addition to knowledge. In too many cases a piece of research is simply a bid for notice. American universities are always on the watch for men who can do something as it should be done. Work is often done solely to arrest the attention of the university authorities. A professorship once gained, nothing more is heard of research. The love of novelty with the itch for writing often passes for the power of original research. The fanaticism for veracity has nothing in common with versatile writing or paradoxical cleverness. It took Darwin 25 years of the severest work before he could get his own leave to print his conclusions. Other writers put forth sweeping generalizations as rapidly as their typewriters can take them from dictation. In certain works which have arrested popular attention, the investigations must have gone on at the highest speed attainable by the pen of the gifted author. Such work justifies Fechner's sarcastic phrase, "cuckoo's eggs laid in the nest of science."

The work of science is addressed to science, no matter if half a dozen generations pass before another investigator takes up the thread. The science of the newspapers is of quite another type, and so is much of the science of famous men from whom newspaper science derives its inspiration.

PAUL KRÜGER'S PRIMITIVE SURGERY.

How Oom Paul Lost His Thumb.—A Freshly Killed Goat as a Remedy for Gangrene.

The *Memoirs of Paul Krüger* which The Century Co. will publish Nov. 26, contains some very good stories of Mr. Krüger's early days in South Africa. The medical profession will appreciate this incident, which we are permitted to copy from advance sheets of the book.

In the year 1845, my two brothers Douw and Theunis, Douw's wife, my own wife and I were making a halt near Secucuni's town, not far from the place where the Spekboom River joins the Steenpoort River, in the north of the Transvaal. We outspanned, and I went, in the course of the day, on the veldt to shoot some game. I was mounted, and carried my old big four-pounder. After about an hour's ride, I came across a rhinoceros and shot at it. But I only succeeded in wounding the animal, and it fled into the wood. I dismounted quickly, ready to shoot again, but moved only a few steps away from my horse, lest the rhinoceros should turn to attack me, in which case it would be necessary to remount at once. I succeeded in getting a second shot; but, at that very moment, my rifle exploded just where I held it with my left hand, and my left thumb, the lock and the ramrod lay before me on the ground and the barrel of the gun behind me. I had no time to think, for the furious animal was almost upon me; so I jumped on my horse and galloped away as fast as I could, with the rhinoceros in fierce pursuit, until we came to the ford of a little spruit.

when my pursuer came to the ground and so allowed me to ride quietly in the direction of our wagons. During the next day, our people, guided by the track of my horse, went to the spot, and there they found the rhinoceros still alive, and, following the trail of blood, discovered the remains of the rifle and my thumb.

My hand was in a horrible state. The great veins were torn asunder and the muscles lay exposed. The flesh was hanging in strips. I bled like a slaughtered calf. I had succeeded in tying a large pocket-handkerchief round the wound while riding, to save the horse from being splashed with blood. When I got to the wagons, my wife and sister-in-law were sitting by the fire, and I went up to them laughing so as not to frighten them. My sister-in-law pointed to my hand, which looked like a great piece of raw meat, the handkerchief being saturated with blood.

"Look what fat game brother Paul has been shooting!" she said.

I called out to my wife to go to the wagon and fetch some turpentine, as I had hurt my hand. Then I asked my sister-in-law to take off my bandolier, and she saw that my hand was torn and noticed how white I was, for I had hardly any blood left in my body. I kept on renewing the turpentine bandages, for turpentine is a good remedy to "burn the veins up," as the Boers say, and thus to stop the bleeding. I sent my youngest brother—he was still really young at the time—to borrow as much turpentine as he could get from the nearest farm, which was about half an hour's ride away. Herman Potgieter, who was afterwards so cruelly murdered by the Kaffirs, came over with his brother. The former got into the wagon and, when he saw the wound, cried out:

"That hand will never heal; it is an awful wound!"

He had to get down again as quickly as possible, for he was nigh fainting. But his brother said, possibly to comfort me:

"Nonsense; I have seen worse wounds than that: get plenty of turpentine."

We inspanned and drove to the farm. Every one there advised me to send for a doctor and have the hand amputated; but I positively refused to allow myself to be still further mutilated of my own free will. The two joints of what was once my thumb had gone, but it appeared that it would still be necessary to remove a piece of bone. I took my knife, intending to perform the operation, but they took it away from me. I got hold of another a little later and cut across the ball of the thumb, removing as much as was necessary. The worst bleeding was over, but the operation was a very painful one. I had no means by me of deadening the pain, so I tried to persuade myself that the hand on which I was performing this surgical operation belonged to somebody else.

The wound healed very slowly. The women sprinkled finely-powdered sugar on it, and, from time to time, I had to remove the dead flesh with my pocket-knife; but gangrene set in after all. Different remedies were employed, but all seemed useless, for the black marks rose as far as the shoulder. Then they killed a goat, took out the stomach and cut it open. I put my hand into it while it was still warm. This Boer remedy succeeded, for when it came to the turn of the second goat, my hand was already easier and the danger much less. The wound took over six months to heal, and, before it was quite cured, I was out hunting again.

I account for the healing power of this remedy by the fact that the goats usually graze near the Spekboom River, where all sorts of herbs grow in abundance.

SOCIETY PROCEEDINGS.

HARVARD MEDICAL SOCIETY OF NEW YORK CITY.

Regular Monthly Meeting, held Saturday, October 25, 1902.

The President, Dr. William B. Coley, in the Chair.

THE scientific business of the evening consisted of papers by Dr. Edward G. Bryant "On Some Features of Diphtheria" and by Dr. Charles Schramm "On Psychosis Following Typhoid Fever."

Nasal Diphtheria.—Dr. Edward G. Bryant said that nasal diphtheria is prone to be missed in diagnosis, or at least its significance is not appreciated. He detailed some cases in which good prognoses had been given and in which there had been for the first few days of the illness no question of diphtheria, yet they proved to be the affection in very severe form. During diphtheria epidemics discharges from the nostrils should always be the subject of suspicion, especially if they are accompanied by considerable prostration and by more fever than can be accounted for by the catarrhal symptoms. In nasal diphtheria large doses of serum, up to 3,000 units, are needed, and even then the prognosis must be given with care. This constitutes one of the most serious forms of diphtheria.

Cast of Trachea.—In one of Dr. Bryant's cases, there was great tendency to stenosis of the larynx and difficulty of breathing and an intubation tube was inserted. Autoextubation took place and some shreds of membrane were coughed up. When the tube was reinserted, it became blocked by membranes pushed before it and had to be removed. It was found clogged with membrane and in the paroxysm of coughing that followed its removal a cast of the trachea was coughed up. A few days later another and more complete cast came away. The patient recovered. These cases are apt to be especially fatal, however.

It is extremely important in Dr. Bryant's opinion not to give a favorable prognosis early in a diphtheria case, for there is no knowing what serious symptoms may develop. As an illustration of this he detailed the case of a child of seven, who had been ill for two days and a favorable prognosis had been given. There was some congestion of the throat and edema of the faucial tissues and a considerable amount of grey membrane, but there was a suspicious snuffing of the nose. On the third day, an offensive nasal discharge began. Three thousand units of antitoxin were employed and nasal irrigations from a height of three feet were practised. Double cervical adenitis developed and on the fourth day symptoms of sepsis became evident. The nasal irrigations had to be stopped because of bleeding from the nostrils. The patient's color was very poor and vomiting set in. The stools, however, remained normal. There was some improvement for a time and, on the thirteenth day the temperature rose to 105 degrees and albumin with hyaline and granular casts were found in the urine. The heart acted very poorly at this time. The temperature declined by lysis and everything seemed to point to eventual recovery.

Another rise in temperature showed the presence of a further complication and bronchopneumonia was diagnosed. Accompanying this there was considerable tympanites and tenderness of the abdomen. One consultant declared that this was due to peritonitis. He suggested as the origin of the peritonitis appendicitis and advised operation. Another consultant thought it was due to thrombosis of the veins of the mesentery and advised against operative interference. Dr. Bryant himself, because of a recent previous experience quite similar in character, was of the opinion that the abdominal symp-

toms were dependent upon diaphragmatic pleurisy and its paralyzing effect upon the diaphragm.

At the autopsy the peritoneum was found normal and the appendix without any pathological condition. The veins of the mesentery were not affected. A quantity of purulent fluid with gas was found in both pleural cavities and a considerable amount of turbid fluid was removed from the pericardium. The tympanites and apparent peritonitic symptoms were due then to paralysis of the diaphragm and consequent failure of the peristaltic movements of the intestines to produce evacuations of gas as in health. Considerable involvement of both lungs was found and the bronchopneumonia seemed due to mixed infection.

Chronic Intubations.—Dr. Bryant gave the details of a series of cases in which intubation had to be practised for many months because the patient complained of difficulty of breathing as soon as the tube was removed. In these cases the intubation tube may have to be left in place for many months, or even for several years. In some discharged cases that have been under Dr. Bryant's observation, tubes were in for sixteen months, for six months, and five and three months respectively. In cases that are still under his observation tubes have been in for seventeen, sixteen and fourteen months and three cases for over six months, and it is as yet impossible for the patients to breathe when the tube is removed.

Causes of Necessity for Intubation.—The lesions that require the persistence of intubation are not due to a faulty introduction of the tube originally, but to a hypertrophy of subglottic tissue. Children who have to wear the tube constantly are cheerful and in good health. They play freely and are often in excellent spirits and perfectly hearty. They eat without difficulty, laugh and cough and apparently are oblivious to the presence of the tube. When by any chance the tube is coughed up, a serious set of symptoms develop. The dyspnea may not occur at once, for little patients may sometimes bring the tube to the doctor themselves to have it reintroduced. If the doctor is present in the ward when the accident occurs usually there is very little difficulty, patients do not get excited, but if there be any delay in summoning him, they become frantic.

Treatment of Chronic Intubation.—Dr. Bryant has tried all sorts of tubes in order to prevent auto-extubation, except the corrugated ones, and he considers that Roger's advice to increase the size of the tube every six weeks, always using one a little larger than the age would seem to demand and inserting a tube that is as large as can be forced in by an expert intubator seems to be the most hopeful procedure. Dr. F. Deuel's suggestion to fasten the tube in place by means of a retaining clamp or button will probably prove the solution of the problem. At times persistence in replacing the tube will secure its retention for the time being at least. In a recent case the tube was coughed up and replaced three times in 15 minutes and then after careful cleansing of the pharynx and larynx and the administration of a twelfth of a grain of morphine, it was replaced once more and stayed in place.

Stenosis of Larynx.—Dr. Charles R. L. Putnam said that he has had under observation a child in whom after two operations for supposed benignant processes in the larynx, the larynx was extirpated because the growth was found to be malignant. Tracheotomy was done and complete stenosis of the larynx occurred as a consequence of cicatricial contraction of the tissues. After tracheotomy a small sound was forced through the larynx and this was gradually dilated until a French 36 sound could be passed and a tube was inserted larger and a little bit longer than would be demanded by the

age of the patient, so as to come down beyond the tracheotomy wound. The tube was held in place by stitches. After several months it was removed but the stenosis recurred. He had been supposedly wearing a tube ever since and was summoned for examination by several physicians this morning. The most careful examination failed to show any signs of the tube. After a while the boy confessed that about a month ago, while in bathing he coughed up the tube, but said nothing about it and has felt no inconvenience since. It is evident then that at times these stenotic conditions become less liable to contraction than they were at the beginning.

Cicatricial Stenosis After Tracheotomy.—Dr.

Arthur B. Deuel said that in three cases that had been under his observation, a cicatricial band had formed in the larynx above the tracheotomy wound. In these cases gradual dilatation of the trachea and larynx had to be performed, usually by retrograde methods and then the air passages are kept open by means of a tube. Such patients should not be kept in the family until they are brought to a condition where they can dispense with their tubes. They should be kept under observation and, if possible, where the physician can see them in a few minutes after extubation, if this should happen by accident. In two of his cases, Dr. Deuel has succeeded in keeping the laryngeal tubes in position by clamps applied through the skin wounds. Two of these patients now have squeaking voices though beforehand they were utterly unable to talk because of complete stenosis below the larynx.

Dr. Deuel does not think that the formation of the cicatricial band above the tracheotomy wound is due to any defect of technic during the operation, nor of treatment afterward, but to a hypertrophy of subglottic tissue. Owing to the irritation of the changed conditions of respiration in certain subjects this seems especially liable to occur. The consequence is a complete closure of the trachea. With regard to the cases of frequent extubation, Dr. Deuel considers that the recurrence of this accident makes the tissues more sensitive and so does not allow them to reach a normal condition. He thinks that he has invented a method by which the tube can be kept in place, especially in cases that are liable to have frequent extubations following one another, within a few hours.

Postfebrile Psychosis.—Dr. Charles Schramm said that mental disturbance following typhoid fever, is not frequent and a typical case seems to deserve reporting in detail. The patient was a cheerful robust boy of fifteen years, with no direct family heredity of importance and no history of convulsions in his infancy. He had suffered from nearly all the contagious diseases of childhood and yet was not a delicate child. He succeeded well at school and presented no mental symptoms. There was a story of a rather violent temper and occasionally he flung things at servants. He was a good sleeper. One paternal uncle is an imbecile, and another is not qualified to manage his own business. A maternal uncle died of tuberculosis.

The typhoid fever began with a very high fever reaching 106° F., followed by vomiting and delirium. After a while, under the influence of hydropathic treatment, the patient became more quiet and the mental condition became dreamy with stuporous periods lasting four or five hours, though not so deep that the patient could not be aroused. As the fever progressed delirium lasted most of the night. During the day there was a tendency to profanity. The patient called his nurse "Mitchell" with a pause and special emphasis on the last syllable *Mitch-hell* and he claimed that she was trying to poison him. He then began to talk with persons who were not in the room and became very abusive.

He tore his bed clothing and nightshirt and the clothing of those who came near him. He called his mother to him one day and then struck her very severely because she would not promise to keep others from poisoning him. During most of the day he sang and whistled. This excited condition lasted for a month after convalescence set in. In a certain way the condition resembled the excited stage of delirium tremens, but an excessive use of stimulants could be excluded from the case.

These mental disturbances following typhoid are more frequent than have been thought. Usually there is some family heredity and the typhoid toxemia seems to be the exciting cause. Some changes have been found in the brain cells. A secondary cause of mental disturbance during typhoid fever is the weak heart that results from the presence of toxins in the circulation. Kräpelin, an excellent authority in mental diseases, says that the psychosis developing after typhoid fever may occasionally remain as a permanent condition.

Treatment.—For the excited nervous condition warm baths at about 98° F. were found to be the most useful remedy. These are stimulating to the skin and kidneys and bring rest. No hypnotics were used during this case and as a rule they are contraindicated. During the excited stage there should be plenty of nursing help so as to control the patient properly without danger to himself or the attendants. Such mechanical aids as a straight-jacket, or fastenings for the feet are then not needed. It is much better to control patients in this way than by mechanical means. Nutrition is an important matter, especially after the convalescence from the fever sets in and strong soups, junket and egg and sherry should be used freely, once during convalescence in this case, resort was had to forced feeding. Heredity is the most important element in the case and it is curious to note how the tendency latent until the fever occurred is lighted up by the strain put upon the system by the infection.

Urinary Segregators.—Dr. N. B. Potter presented two instruments meant to facilitate the collection of urine from both kidneys separately in order to secure diagnostic evidence as to the condition of each kidney. The instruments are the invention, one of Louis, the other of Cathelin, French genito-urinary specialists. One of the instruments secures its object of keeping the urine from the two kidneys separate by carrying a diaphragm which is expanded by means of a steel spring after the double catheter is inserted into the bladder. The other secures the same object by means of a stretched piece of rubber, covering the arc of a circle which is made taut after the catheter is introduced. The instruments promise to be of some help in cases where it is difficult to secure ureteral catheterization.

Dr. Guiteras in discussing the instruments said that the Cathelin segregator is much better than either the Harris or Downs instrument, but none of these methods of collecting the urine presents anything like the assurance that is obtained from catheterization of the ureters whenever that is possible.

Dr. Cabot said that he had had some experience with the Harris instrument, but it had been rather disappointing. In cases where there are new growths of the bladder, or where there is some bladder condition such instruments only confirm suspicion as to the existence of kidney disease, when as a matter of fact there may be no pathological lesion of the kidney at all. Dr. Cabot gave the details of one case in which a fibrous growth in the bladder had caused a serious misapprehension as to the existence of disease of the kidney. Unless the collection of the urine from the separate kidneys can give absolute assurance no method will be of any use. It is when all other diagnostic methods

have failed to give absolute certainty that the collection of the separate urine is expected to remove doubt. Any method then into which a large element of doubt enters is scarcely worth considering. These new French instruments seem to labor under this objection.

Anchoring of Kidney.—Dr. Guiteras demonstrated an improvement in the technic of anchoring the kidney. At the present time when either for floating kidney, or because of the hope of securing relief of symptoms from chronic nephritis the suturing of the kidney to the lumbar muscles has become of more importance, the question of how to secure firm adhesions of the kidney with least disturbance of that organ, is important. Usually the capsule is stripped from the kidney completely as far as the hilum. To many persons this has presented an element of risk, since the kidney loses the support of the fibrous capsule. Dr. Guiteras proposes to strip only the half of the kidney which lies against the abdominal wall, thus securing the benefit of strong adhesions without unnecessary removal of the protective fibrous capsule. Dr. Guiteras's method of introducing the stitches makes the position of the kidney very firm and enables the operator to draw it against the muscles of the back in such a way as to hold it absolutely in place.

THE MEDICAL ASSOCIATION OF THE GREATER CITY OF NEW YORK.

Stated Meeting, held at the New York Academy of Medicine, November 10, 1902.

The President, Andrew H. Smith, M.D., in the Chair.

The Treatment of Ordinary Forms of Loss of Hair.—The first paper of the evening, on this subject, was read by Dr. R. A. Sands. It seemed to him remarkable that in spite of the rapid rise in medical knowledge in modern times, the study of the hair in no wise participated in the advance, and the treatment of it is practically in the hands of those destitute of learning. As the field is therefore a new one, from a scientific point of view, there is naturally a considerable diversity of opinion, even in regard to the simplest problems to be met with. In this paper he proposed to give a résumé of his own experiences, based upon a careful study of over 2,000 cases. He first referred to several popular beliefs and then stated that a careful analysis fails to show that these alleged causes, namely, age, heredity, general physical condition, and mental work, produce loss of hair. An enormous percentage (92 per cent.) are suffering from a disease popularly known as dandruff. This term covers a variety of conditions, the knowledge of which is still very imperfect. The various forms of so-called dandruff, however, are undoubtedly due to microorganisms. In clinical experience striking examples of contagion are constantly met with, and three illustrative cases were cited.

No two cases are to be treated exactly alike. That which will work well for one patient will often completely fail in another. The following method of procedure has yielded excellent results: (1) Cleanse the scalp of all that will prevent or hinder the action of the germicide; (2) select a germicide suitable to the case; (3) apply the germicide in the form best adapted to the patient; (4) prevent re-infection; (5) stimulate the scalp, if this is indicated.

Almost any good soap will do for shampooing. For very dry hair a sodium iodide and sulphur soap, made by Stiefel, has given satisfactory results, while for oily hair ivory soap is prescribed. Tincture of green soap would be an admirable preparation if it were only made from good green soap. Personally, Dr. Sands has found it better to make his own green soap, as he can

then depend upon its being unadulterated and of uniform strength. Usually at the beginning of treatment the scalp should be shampooed at least once a week. Of all the germicidal drugs recommended, resorcin easily heads the list. The addition of a little salicylic acid will often prevent the staining of the hair sometimes caused by it. Other useful remedies are salicylic acid, chloral hydrate, sulphurous acid, and mercuric chloride, all of which may be applied in lotion form. The liquid menstruum may vary from 25 per cent. of alcohol to pure alcohol, according to whether the scalp is oily or not. Castor oil or a little glycerin are sometimes added to the lotion. Pomades would often be of service, but it is difficult to get women to use them. If any of these drugs are prescribed in ointment form, the proportion prescribed should be considerably greater. In addition, prepared sulphur, tar, or one of the various forms of mercury can be employed. Quinine and tannin have yielded no results. Patients should always be warned of the possibility of re-infection, and instructed how to cleanse their hats, brushes, sofa pillows, etc. They should also be warned of the possibility of their brushes becoming infected through the domestics.

Stimulants.—Not until the disease is well under control should stimulating applications be employed. Too often the mistake is made of prescribing some irritant, like tincture of cantharides, when the disease is in an active state, with the result of exciting acute inflammation of the scalp. The stimulants which have yielded the best results are, spiritus formicarum (Ph.G.), tincture of nux vomica, turpentine, ammonia, camphor, acetic acid, and chloroform. Massage has given better results than any drug, and at times its effect in diminishing hair loss is magical.

Loss of Hair Following Fevers.—In many cases that he has seen of this, dandruff has been met with, and it is his belief that the hair falls out, not on account of the fever, but because of the combination of fever and dandruff. The practice of having the head shaved after a fever cannot be too strongly deprecated. Dr. Sands concluded with some remarks as to the care of the hair after the patient has recovered. An important point often overlooked is to shampoo the brush and comb at the same time the scalp is cleansed.

Causes of Loss of Hair.—Dr. George H. Fox said he disagreed with Dr. Sands in some points regarding etiology. The falling of the hair is ordinarily due, in his opinion, to three classes of causes: (1) Local disease, as eczema, for example. Dandruff is no doubt the cause in many instances. At the same time, thick hair is often found even when dandruff is present and where it continues for years. When there is disease of the scalp, baldness is likely to occur. (2) Weakness of the general system. The hair falls after fevers as the result of the enfeebled condition of the patient. Loss of hair is particularly liable to occur when the nervous system is affected. When there is health of mind and body we usually find a healthy scalp. When there is loss of hair it is the natural result of a definite cause. The scalp will take care of itself if the rest of the body is in good condition. (3) An innate tendency to falling of the hair. In the majority of cases the gray hair and baldness met with are no more evidences of disease than old age itself. The tendency is inherited, just as a stature of six feet, for instance, is inherited from one's ancestry. When there is such an innate tendency, baldness cannot be prevented.

Shampooing.—As to the frequency with which shampooing should be practised, it should be repeated just as often as is necessary to keep the scalp clean, whether this is three times a week or once a month.

Dandruff Not the Cause.—Dr. E. B. Bronson thought that in early alopecia there was usually a local condition which judicious treatment could remedy. Unless this were the case there would be very little hope in prescribing for any patient so affected. In his opinion it was incorrect to say that dandruff was the cause of loss of hair. Alopecia and dandruff were both due to the same cause, and the dandruff was simply the indication of a local tendency which is often inherited. These were the cases most commonly met with, but there were other varieties, such as alopecia pityrodes, in which he had no doubt that a parasite was present. Here antiparasitic remedies were decidedly indicated. In dry cases an ointment was usually called for, and it was his practise to employ a well-made cold cream containing 10 per cent. of sulphur. Sulphur is certainly an admirable remedy, first, because it is one of our best parasitocides, and second, because it is one of the best cornifying agents. He had had good results from resorcin and also from the condensation product of tannin and formaldehyde (tannoform), which he employed in a five-per-cent. alcoholic solution. For cleansing he used green soap.

The Scalp and the General Health.—Dr. R. J. Devlin said he could not agree with Dr. Sands that loss of hair is not due to a weakness of the system. In the lower animals it is well known that the coat becomes materially affected when the health of the animal is depreciated. So, in the human subject there is an intimate relation between the condition of the hair and the general condition of the individual. The key to the situation is not seborrhea, but the progressive atrophy of the scalp that is undoubtedly the chief cause of the ordinary forms of loss of hair. There are undoubtedly many kinds of seborrhea, and some of them would seem to be of parasitic origin, but it would be a great mistake to form the idea that seborrhea is the only cause of the trouble in question. As to chronic progressive atrophy of the scalp, the most prominent cause, it is not known how to treat it successfully. If massage be used the hairs that are left may be rubbed away. As to remedies to be used in seborrhea, he would place them in a somewhat different order from that mentioned in the paper. First he would place the sulphur compounds, and he had great faith in the old-fashioned sulphur ointment, although it was very difficult to get patients to submit to its use. Salicylic acid might be added to relieve itching. Next he would place ammoniated mercury, and third, (although he considered it a poor third), resorcin.

The Prophylaxis of Appendicitis.—This was the subject of a paper by Dr. Henry Illoway. He holds constipation, an overloaded colon, to be the essential factor in the causation of appendicitis. Many more persons are constipated, he said, than really have an idea that they are so, and attacks of temporary constipation of longer or shorter duration are entirely overlooked or forgotten by the great majority of persons. As to the way in which constipation affects the appendix: (1) It enables fecal matter to pass into the appendix; (2) the fecal matter, being stagnant in it, may undergo liquefaction and permit of the development of bacteria capable of giving rise to an inflammatory process which may present all the aspects of an acute infection; (3) the formation of concretions may result. When feces become stagnant in the colon they have a tendency to become inspissated and hardened. Such inspissation of fecal matter occurs here more readily than elsewhere in the intestinal tract, owing to the greater immobility of the contained matter, the greater length of the absorbing surface, and the closer application of the latter to the contained matter. The

findings of Lockwood as to the abundance of bacteria in some of the concretions are also thus readily explained, without recourse to the theory of a special bacterial invasion, for which no proof can be adduced. The greater exemption of females as compared with males is thus explained: (1) In women the pelvic cavity is much roomier than in man, and thus perhaps permits of greater distention of the cecum without the orifice of the appendix being forced open; (2) woman is more particular in her food and eats more at her home table, so that she is less liable to introduce decaying matter (which is likely to set up sharp putrefactive fermentation) into her digestive tract; (3) she is not given as much to the free use of alcoholic beverages, which of themselves make a predisposition to congestive processes in the abdominal organs; and particularly in the terminal parts of the intestinal tract.

Prevention.—The conclusion, therefore, is reached that if constipation is removed there will be no danger of appendicitis. By removing the constipation is not meant the giving of a purgative to provoke an evacuation to be followed only by a still more obstinately constipated state, but a restoration to the intestinal tract of its original and inherent vigor, so that it can empty itself spontaneously and with regularity. Although it would be somewhat difficult to demonstrate clinically the correctness of the view expressed, yet cases can be referred to in which, notwithstanding that a first and even a second attack of appendicitis has occurred, and although operative interference was advised by eminent surgeons, a cure has been effected by the relief of the patient's constipation. Three cases of this kind were cited by Dr. Illoway.

Constipation Not the Only Cause of Appendicitis.

—Dr. Egbert Le Fevre related the cases of two nephews of his own, aged respectively twenty-one and twenty-three years. They were under daily supervision, all their functions were performed normally and regularly, and they were in admirable general condition, so that he had been somewhat mystified when each of them in turn developed appendicitis. It was a fact, however, that they were both attacked with the disease after violent muscular exertion. In the first of these cases a gangrenous condition of the appendix was found within 48 hours of the onset. In the other the appendix was not gangrenous at first, and the patient soon recovered from the attack. Three weeks later, however, he developed gangrenous appendicitis. Dr. Le Fevre thought that at present there was very little light on the predisposing causes of the disease. He was convinced that the number of cases of mild inflammation of the appendix was very large. While constipation was no doubt a predisposing and exciting cause, he could not but believe that there must be something beyond this. Thus, it seemed to him that the nutrition of the blood-vessels had something to do with the etiology. If appendicitis occurred in an individual in whom they were well nourished, the inflammation he thought would be slight, but if in one in whom they were poorly nourished, it would be severe and perhaps gangrenous. A faulty development of the abdominal vessels was also supposed by some authorities to be concerned in the causation.

Prophylaxis.—Dr. R. T. Morris thought that prophylaxis against appendicitis in a person who has never had the disease required the same kind of management as was required for preventing him from getting run over by an automobile. If a patient who has had one attack of the disease and carries a concretion or a mucous inclusion in his appendix, prophylactic measures may be expected to postpone an operation from the time when he is at leisure until some time

when he has not a moment to spare or is off on a fishing trip in the backwoods of Canada. If a patient has neither concretion or mucous inclusion, and if no adhesions resulted from the primary infection, prophylactic measures may lessen the tendency to a recurrence which is liable to result from a variety of causes. It simply becomes a question for him to decide which is the more irksome, continued attention given to the appendix, with speculative results, or direct surgical attention which allows him to return to his work in 10 days after the operation, with no further trouble in sight. When peritoneal adhesions remain in the appendix region, prophylactic treatment may lessen the tendency to recurrence of infection, but the irritation of the terminal filaments of sympathetic nerves by such adhesions may be expected to have an effect upon the caliber of the blood vessels of the abdominal and pelvic viscera, with remote consequences equally important as the effects of an acute septic invasion. Some of the most desperate cases of appendicitis with which he had had to deal had occurred in patients who had been given prophylactic treatment, but who had not been given a full understanding of the nature of their cases.

Catarrhal Colitis.—Dr. R. C. Kemp said that on account of the poor circulatory supply and the flask-like shape of the appendix, the entrance of feces or any foreign material, as well as slight pressure or torsion, might readily interfere with the vitality and set up inflammatory action. One of the most important factors in the so-called mild cases of catarrhal appendicitis he believed to be catarrhal colitis, or rather acute exacerbations of a chronic inflammation. Local treatment of the intestine, with proper dietetic régime and the regulation of the bowels, would be of value as a preventive of appendicitis from this cause. He had seen cases in which prompt treatment of conditions causing congestion of the caput coli seemed effective in aborting an attack of appendicitis. In some of these pressure-symptoms and congestion were undoubtedly due to dietetic indiscretion and to fecal accumulation near the exit of the ileum into the caput coli. Local congestion, pressure, and auto-infection are the cause of the symptoms, and a large enema and brisk catharsis will relieve them. Under the old opium treatment such cases would undoubtedly have gone on to an attack of appendicitis. He suggested the desirability of carefully investigating the comparative anatomy of the caput coli and appendix in the two sexes. The possibility that the caput coli in the female is larger in proportion than that of the male, and hence may contain more material without pressure or irritation, also that the female appendix may be of such a caliber as to render occlusion less probable, are features which would seem to be well worthy of study. He referred to the value of irrigation in colitis, for the relief of tympanites, etc., and presented his own latest irrigator.

Dr. Sinclair Tousey thought there were certain things to avoid, rather than active measures to be taken, to prevent the occurrence of appendicitis. As to diet, there was probably nothing more liable to cause the disease than great masses of casein, as represented in a Welch rarebit or, to some extent, in any dietary of which milk forms a large part. Tea and coffee he would cut off altogether, substituting for them cool water in ample quantities, both with meals and at other times. There was nothing so essential to every stage of digestion and elimination as the presence of sufficient fluid, and the majority of civilized people did not drink enough with their meals. Excessive muscular effort in certain forms, like rowing and bicycle riding, had proved a factor in causing appendicitis, and was to be avoided. He would never entrust colonic flushing to the patient himself.

When this has been done, especially by means of a certain patented apparatus, it has been responsible for many cases of the disease. The administration of intestinal antiseptics like naphthalin and of such laxatives as aloin, belladonna and strychnine, and the prompt treatment of rectal fissure, ulcer or fistula, or of hemorrhoids, will prevent the occurrence of some cases of appendicitis.

BOOK REVIEWS.

PRACTICAL OBSTETRICS. A Text-book for Practitioners and Students. By EDWARD REYNOLDS, M.D., Visiting Surgeon to the Free Hospital for Women, Fellow of the American Gynecological Society, etc., and FRANKLIN S. NEWELL, M.D., Assistant in Obstetrics in the Harvard University; etc. Illustrated with 252 engravings and 3 colored plates. Lea Brothers & Co., Philadelphia and New York. 1902.

Nor since Dr. A. F. A. King first showed us that it was possible to make the dry details of technic in this subject an interesting affair to students have we had put before us such an excellent and convenient little text-book of this variety. The success with which the former volume by these authors met should be doubled by this book, as it will fill a long felt need for a clear and terse exposition of this branch of medical procedure. From a literary standpoint, it is most worthy of commendation and praise.

The chapter on "The Hygiene and Management of Normal Pregnancy," is one of the best of its kind that has appeared in any book for sometime past. The numerous little details of this period of female life, are most clearly dealt with.

All through the book is the evidence that the authors consider childbirth, a normal function, and that the one object in writing of the subject is not to make every condition which may arise an excuse for surgical interference.

The illustrations have been most carefully selected from the books of the present investigators, and not as is the custom, in the great majority of new obstetrical text-books, from the archives of the past experimenters.

A NURSE'S GUIDE FOR THE OPERATING ROOM. By NICHOLAS SENN, M.D., Ph.D., LL.D., C.M., Prof. of Surgery, Rush Medical College, in Affiliation with the University of Chicago, etc. Published under the direction of the Sisters of Charity, St. Joseph's Hospital, 360 Garfield Avenue, Chicago, Ill. W. P. Keener & Co., Chicago, Ill. 1902.

This little volume is a set of notes or lectures, delivered by Dr. Senn to the nurses at St. Joseph's Hospital, Chicago. As is intended, the text is simple and concise, dispensing with any tiresome and unnecessary details or technical explanations.

Valuable and simple advice is given to the nurse in the principles of anesthesia in the capacity of assistant to the surgeon, when of necessity must be the case sooner or later in the experience of every such individual. The preparations for operation in a private house, are exceedingly simple if intelligently carried out by the nurse, and they will not totally upset the household administration as is the general rule on such occasions. The sterilization of dressings and ligatures is clearly set forth; and the importance of the knowledge of strict asepsis is clearly shown by the author.

One feature of the book, which will materially add to its value, is a list of the necessary instruments which

are employed in almost every surgical, gynecological and other operations. The necessary preparations for an obstetrical case, including the materials to be used by the nurse, mother and child and the doctor are given in detail.

Wherever it is of advantage, illustrations of the various instruments are given, along with the list of those employed in the operation.

We believe that this little volume should prove to be a most valuable help to nurses both in hospitals and in private practice.

TREATISE ON DISEASES OF THE SKIN FOR THE USE OF ADVANCED STUDENTS AND PRACTITIONERS. By HENRY W. STELWAGON, M.D., Ph.D., Clinical Professor of Dermatology in the Jefferson Medical College and Woman's Medical College, Philadelphia; Dermatologist to the Howard and Philadelphia Hospitals, etc. W. B. Saunders & Company, Philadelphia and London.

SINCE the publication a few years ago of Dühring's excellent work on the skin, no book has seemed better adapted to the needs of actual practice than the present volume. The plates and text-illustrations, necessarily of great importance in depicting cutaneous lesions, are worthy of commendation.

With some modifications the classification of Hebra is used throughout, and undoubtedly this, though imperfect, is more helpful clinically than the alphabetical arrangement of some authors. The main groups are: Hyperemias, Inflammations, Hemorrhages, Hypertrophies, Atrophies, New Growths, Neuroses, Diseases of the Appendages, and Parasitic Affections. Like other dermatologists, the author treats epithelioma by caustics rather than by excision, defending his action by noting that the epitheliomata which come to the skin specialist are usually superficial, slight, circumscribed and slow. Regarding erythromelalgia as a neurosis, he fails to note the cases in which dissection has shown local arterial disease. For illustration of erythema multiforme the uncommon varieties are chosen. Drug rashes are dismissed with too brief mention. The extensive chapter on syphilis with its accompanying illustrations is complete and interesting, syphilis, with lupus and lepra, being classed among the new growths.

BOOKS RECEIVED.

The MEDICAL NEWS acknowledges the receipt of the following new publications. Reviews of those possessing special interest for the readers of the MEDICAL NEWS will shortly appear.

THE PUBLIC HEALTH AND THE DOCTOR. By a Regular Physician. 16mo, 149 pages. Dallas, Texas.

THE PROPRIETARY ASSOCIATION OF AMERICA. Twentieth Annual Report. Joseph Leeming, Secretary, N. Y.

TRANSACTIONS OF THE STATE MEDICAL SOCIETY OF WISCONSIN. Vol. xxxvi, 8vo, 473 pages. Illustrated. Madison, Wisconsin.

INTERNATIONAL CLINICS. Vol. III. Twelfth Series, 1902. 8vo, 306 pages. J. B. Lippincott Company, Philadelphia and London.

DISEASES OF THE SKIN. By Dr. Joseph Grindon. 8vo, 377 pages. Illustrated. Lea Brothers & Co., Philadelphia and New York.

THE SCHOTT METHODS OF THE TREATMENT OF CHRONIC DISEASES OF THE HEART. By Dr. W. B. Thorne. Fourth Edition. 8vo, 138 pages. Illustrated. P. Blakiston's Son & Co., Philadelphia.